Appendix C. FOS Requirement Status Matrix

The following matrix delineates each applicable FOS Level 4 requirement, including mission and non-mission specific requirements, associated verification information, and NCRs against those requirements. Information provided reflects FOS Formal Acceptance Test execution results as reported at the FOS RRR.

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
ANA-2000B					
	F-ANA-01010	failed	The FOS shall be able to access all archived telemetry data for analysis.	The archived telemetry data would need to be in an FOS standard format. It is also required that the applicable data base be provided as well.	08620
	F-ANA-03010	passed	The FOS shall be able to perform analysis on all telemetry parameters contained within the telemetry archive.		0
	F-ANA-03135	passed	The FOS shall provide the capability to uniquely time tag parameters to the granularity of 1 milliseconds.		0
	F-ANA-04010	passed	The FOS shall build a dataset in response to a request for data		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04020	passed	The FOS shall be able to generate datasets from archived S/C telemetry.	S/C data is stored in a merged archive of real-time and recorder data. Since this merged archive contains both types, the datasets generated may also contain both, depending on the time span of the dataset.	0
	F-ANA-04070	passed	The FOS shall provide the capability to generate datasets which include any combination of one or more telemetry mnemonics for a single specified mission.		0
	F-ANA-04080	passed	The FOS shall provide the requested EU and/or raw value for each occurrence of each specified telemetry mnemonic in the dataset.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04090	passed	The FOS shall provide the spacecraft time for each telemetry mnemonic in the dataset.	Spacecraft time for each mnemonic is expressed as an offset from the time of the first parameter in the dataset.	0
	F-ANA-04100	passed	The FOS shall provide the capability to generate datasets based on spacecraft start and stop times as specified in the request.		0
	F-ANA-04110	passed	The FOS shall provide the capability to generate datasets which contain telemetry values based on user specified sampling rate specified per parameter.		0
	F-ANA-04120	partially passed	The FOS shall provide the capability to generate datasets in the carryout format.	Carryout file format is described in the FOS Operations Tools Manual.	08621

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04130	partially passed	The FOS shall provide the capability to include the following information for each sampling in a dataset: a. Raw value b. EU converted value (if applicable) c. Quality status indicator d. Out-of-limits low indicator e. Out-of-limits high indicator f. Delta limit error indicator g. Conversion error indicator h. Invalid mnemonic indicator	The invalid mnemonic indicator provides the information on whether the particular mnemonic is valid for the data base being used to analyze the data. This becomes particularly important when a request crosses data bases and a specified mnemonic is defined in one data base and not the other.	08621, 08504
	F-ANA-08070	failed	The FOS shall provide the capability to process a routine request for analysis at 12 time the real time telemetry rate.	A routine request for analysis is defined to be a request for telemetry and statistics from telemetry for up to 1500 mnemonics. This performance requirement applies to the time period starting when telemetry data begins	08642

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				flowing to the analysis request processor, and ending when the resulting dataset is passed on the User Interface for display. This requirement applies only to requests which do not require telemetry which is stored at a location other than the local EOC telemetry archive.	
	F-FUI-03100	partially passed	The FOS shall allow the user to choose the start and stop time or an event and duration based on the following: a. calendar date and time b. north equator crossing c. south equator crossing d. entering orbital day e. entering orbital night f. loss of signal		08643

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			g. acquisition of signal h. last N hours i. last N orbits		
	F-FUI-09100	partially passed	The FOS shall provide the capability to build an off-line analysis request that contains the following: a. spacecraft Id b. spacecraft subsystems c. telemetry parameters d. time period e. sampling rates f. data filters g. frequency intervals h. output views i. output view formats	Output view formats are defined in section 9.1.9.2.	08641

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			j. pre-defined algorithms k. request name		
	F-FUI-09105	passed	The FOS shall provide the capability to select a sampling rate per selected telemetry parameter when building an analysis request for historical data analysis. Sampling rates shall be one of the following: a. all data b. changes only c. every Nth sample when N = a specified number		0
	F-FUI-09120	passed	The FOS shall provide the capability to modify a stored analysis request and resubmit it as a new request.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09125	passed	The FOS shall provide the capability for a user to save an analysis request.		0
	F-FUI-09130	passed	The FOS shall provide the capability for a user to delete a stored analysis request.		0
	F-FUI-09170	passed	The FOS shall provide the capability to display an analysis request.		0
ANA-2010B					
	F-FUI-03110	unverified	The FOS shall allow the user to specify a time interval based on any of the following: a. every N passes b. every N orbits c. every N hours d. every N days		08769

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			e. every N weeks f. every N months		
	F-FUI-09115	unverified	The FOS shall provide the capability for an analysis request to be submitted using the standing order process.	Standing orders are described in section 9.1.9.3.	08769
	F-FUI-09300	unverified	The FOS shall accept and process analysis requests containing at a minimum: a. date/time to start processing the request b. date/time to stop processing the request c. request interval (every n passes, every n orbits, every n hours, every n days, every n weeks, every n months)		08769

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			d. telemetry analysis requests e. report templates f. request name g. name of the person who submitted the request		
	F-FUI-09305	unverified	The FOS shall generate telemetry analysis requests and/or report requests at the specified request interval from the start date to the stop date.		08769
	F-FUI-09310	unverified	The FOS shall receive the associated telemetry analysis data sets, at each request interval, and will initiate the generation of the output products based on the telemetry analysis and/or report requests.		08769

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09315	unverified	The FOS shall produce status for executing standing orders.		08769
	F-FUI-09350	unverified	The FOS standing order browser shall provide information on standing orders including, at a minimum: a. request name b. next interval start time c. standing order status (i.e. active, halted, processing, completed) d. name of person who submitted the request		08769
	F-FUI-09355	unverified	The FOS standing order browser shall provide the capability to sort the standing orders by the following criteria including at a minimum: a. request name		08769

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			b. next interval start time c. standing order status d. name of person who submitted request		
_	F-FUI-09360	unverified	The FOS shall allow the user to view the results of a completed standing order.		08769
	F-FUI-09363	unverified	The FOS shall allow an authorized user to modify the standing order's interval.		08769
	F-FUI-09365	unverified	The FOS shall enable an authorized user to suspend a standing order.		08769
	F-FUI-09370	unverified	The FOS shall enable an authorized user to resume a standing order.		08769

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09375	unverified	The FOS shall enable an authorized user to delete a standing order.	The author, CAC, or PI/TL would be the only users authorized to suspend, resume or delete a standing order.	08769
ANA-2020B					
	F-ANA-07110	unverified	The FOS shall provide the capability to calculate the spacecraft clock error by use of the RDD algorithm.		08733
	F-ANA-07120	unverified	The FOS shall use predicated spacecraft data as input to the RDD algorithm.	The FOS shall allow for the use of different predicted spacecraft delay data depending on the selected downlink data rate (e.g., 1 Kbps, 16 Kbps).	08733
	F-ANA-07130	unverified	The FOS shall interpolate or extrapolate		08733

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			to the nearest millisecond the predicted spacecraft range data.		
	F-ANA-07160	unverified	The FOS shall provide notification once per minute indicating the average clock delta value for the RDD method.	Notification shall only be provided during a real-time contact during which the RDD algorithm is being performed.	08733
	F-ANA-07180	unverified	The FOS shall provide the capability control RDD clock correlation operations.		08733
	F-ANA-07300	unverified	The EOC shall provide the capability to generate a clock correlation report for each real-time pass during which clock correlation is performed.		08733
	F-ANA-07310	unverified	The EOC shall provide the following		08733

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			header information in the clock correlation report: a. The start and stop times of the pass during which the correlation was performed. b. The Spacecraft ID. c. The type of calculation used. (USCCS or RDD)		
	F-ANA-07320	unverified	The EOC shall include in the clock correlation report the results from the clock correlation calculation, and the spacecraft time associated with the results.		08733
ANA-2030B					
	F-ANA-07210	unverified	The FOS shall provide the capability to calculate the spacecraft clock error by use of the USCCS method.	Both the spacecraft and the SN must be configured tor a SN coherent two-way tracking service in order to	08774

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				collect USCCS data.	
	F-ANA-07215	unverified	The EOC shall provide the capability to maintain the spacecraft clock error to an accuracy of 100 microseconds.		08774
	F-ANA-07220	unverified	The EOC shall collect Time Transfer Messages (TTM) for use by the USCCS method.	The NCC time transfer message format is Performance Data Message type 92, Message Class 66 (OPM-66). This format can be examined in 530-ICD-NCCDS.	08774
	F-ANA-07230	unverified	The EOC shall, for the USCCS method, collect a maximum of 1275 data samples.	This represents five (5) full time transfer messages, each containing 255 time sample groups.	08774
	F-ANA-07240	unverified	The EOC shall provide telemetry data filtering capabilities for use with the	Data filtering criteria include requiring coherent mode (from housekeeping	08774

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			USCCS method.	telemetry) and spacecraft transponder lock (from CLCW).	
	F-ANA-07250	unverified	The EOC shall perform USCCS calculations following the receipt of all tracking service Time Transfer Messages and the termination of the SN coherent two-way tracking		08774
	F-ANA-07260	unverified	The EOC shall provide a notification that identifies the clock error for the USCCS method.		08774
	F-ANA-07280	unverified	The EOC shall provide the capability to control USCCS clock correlation operations.		08774
	F-ANA-07310	unverified	The EOC shall provide the following		08774

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			header information in the clock correlation report: a. The start and stop times of the pass during which the correlation was performed. b. The Spacecraft ID. c. The type of calculation used. (USCCS or RDD)		
	F-ANA-07320	unverified	The EOC shall include in the clock correlation report the results from the clock correlation calculation, and the spacecraft time associated with the results.		08774
	F-ANA-07330	unverified	The EOC shall compute the S/C master oscillator frequency a bias and drift rate from the result of the clock correlation, and include these values in		08774

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			the report.		
	F-RMS-04085	unverified	The EOC shall provide the capability to receive and process Time Transfer messages from the NCC.	Reference Section 7.2.5.3.	08774
ANA-2040B					
	F-ANA-04050	unverified	The FOS shall provide the capability to generate a dataset from the results of a user supplied algorithm.		08768
	F-ANA-06020	unverified	The FOS shall provide the capability to curve-fit a parameter to a polynomial of user specified order, up to order 9.		08768
	F-ANA-06021	unverified	The FOS shall provide the capability to apply a Fast Fourier Transform (FFT) to		08768

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a parameter.		
	F-ANA-06022	unverified	The FOS shall provide the capability to smooth a parameter by a user specified factor. Smoothing means that every N data points, where N is the user specified factor, are averaged to yield a single data point.		08768
	F-ANA-06023	unverified	The FOS shall provide the capability to compute the Root Mean Square (RMS) of a parameter.		08768
	F-ANA-06030	unverified	The FOS shall provide the capability for monitoring and evaluating spacecraft functions, resources, and performance including: a. stored command processing	The following FOS capabilities provide for the monitoring and evalution of the aforementioned (a-h): 1. state check covers a 2. SSR covers b	08768

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			b. spacecraft recorders c. safe mode processes d. electrical power subsystem e. propulsion subsystem	3. DSS covers c 4. Statistics processing covers d-h.	
	F-ANA-06040	unverified	The FOS shall provide the capability to apply a user supplied algorithm to data maintained in the telemetry archive.	The User algorithms shall be written in the 'C' or 'C++' language and be compiled and linked into a data object appropriate for dynamic linking on the target platform.	08768
	F-ANA-06045	unverified	The FOS shall provide the capability of allowing up to 20 input parameters and 20 output parameters for a user supplied algorithm.		08768
	F-ANA-06050	unverified	The FOS shall provide the capability to utilize data contained within a dataset as input into a user supplied algorithm.		08768

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09112	unverified	The FOS shall provide the capability to specify a parameter for input to an algorithm when building an analysis request for historical data analysis. Algorithms can be one of the following: a. user-defined		08768
	F-FUI-09500	unverified	The FOS shall provide the capability to register an algorithm that contains the following: a. algorithm name b. algorithm object file name c. output parameter name d. input parameters		08768
	F-FUI-09510	unverified	The FOS shall provide the capability to		08768

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			select a registered algorithm per selected parameters when building an analysis request.		
	F-FUI-09515	unverified	The FOS shall provide the capability to select valid discrete and analog values to be used per algorithm.		08768
ANA-2060B					
	F-ANA-04350	unverified	The FOS shall provide the capability to generate a Time Ordered Downlink Report for a user specified mission.	A Time Ordered Downlink Report is a listing which contains all data base defined parameters and their sampled values for the time interval specified. The report is ordered based on the position of the telemetry parameters in the downlink stream.	08777
	F-ANA-04360	unverified	The FOS shall produce a Time Ordered		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Downlink Report for the time interval requested by the user.		
	F-ANA-04370	unverified	The time interval of a Time Ordered Downlink Report shall be greater than or equal to 1 second.		08777
	F-ANA-04375	unverified	Each Time Ordered Downlink Report shall contain the following header information: a. The date and time of the report b. The starting spacecraft time of the data c. The ending spacecraft time of the data		08777
	F-ANA-04380	unverified	The FOS shall provide all data base defined telemetry mnemonics and their	This includes both analog and discrete parameters.	08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			respective values for the time interval requested in the Time Ordered Downlink Report. If a telemetry mnemonic has a data base defined EU conversion, the EU value will be supplied, otherwise the raw value will be supplied.		
	F-ANA-04390	unverified	The FOS shall provide the spacecraft time for each telemetry mnemonic listed in the Time Ordered Downlink Report.		08777
	F-ANA-04400	unverified	The FOS shall order the telemetry parameters in a Time Ordered Downlink Report according to a unique spacecraft time tag associated with each parameter.		08777
	F-FUI-02920	unverified	The FOS shall provide the capability to		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			create a custom report template composed of the following information: a. ASCII files b. off-line analysis products c. screen snaps d. blocks of descriptive text		
	F-FUI-02950	unverified	The FOS shall provide the capability to save a report template.		08777
	F-FUI-02955	unverified	The FOS shall provide the capability to modify an existing report template.		08777
	F-FUI-02960	unverified	The FOS shall provide the capability to delete a report template.		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-02961	unverified	The FOS shall provide the capability to specify the report margins.		08777
	F-FUI-02962	unverified	The FOS shall provide the capability to specify the report fonts.		08777
	F-FUI-02963	unverified	The FOS shall provide the capability to specify the report title.		08777
	F-FUI-02964	unverified	The FOS shall provide the capability to specify a default destination for the completed report (file, printer, browser/editor).		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-02965	unverified	The FOS shall provide the capability to specify report author name.		08777
	F-FUI-02967	unverified	The FOS shall provide the capability to create a report from a custom or routine report template.		08777
	F-FUI-02970	unverified	The FOS shall provide the capability to accept report generation requests.		08777
	F-FUI-02975	unverified	The FOS shall provide the capability to insert a specified file into a report.		08777
	F-FUI-02980	unverified	The FOS shall provide the capability to insert a specified off-line analysis	An off-line analysis product is either 1) a snapshot of a table or graph	08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			product into a report.	produced by an analysis request, or 2) an analysis report.	
	F-FUI-02985	unverified	The FOS shall provide the capability to insert a specified screen snap into a report.		08777
	F-FUI-02990	unverified	The FOS shall provide the capability to insert predefined blocks of text into a report.		08777
	F-FUI-02991	unverified	The FOS shall provide the capability to insert routine reports into a report.		08777
	F-FUI-02995	unverified	The FOS shall provide the capability to save a completed report.		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-03000	unverified	The FOS shall provide the capability to initiate the printing of a completed report.		08777
	F-FUI-03005	unverified	The FOS shall provide the capability to initiate the report browser/editor with a completed report.		08777
	F-FUI-03010	unverified	The FOS shall provide the capability to cancel the processing of a report generation request.		08777
	F-FUI-03025	unverified	The FOS shall provide the capability to display a list of existing report templates.		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-03030	unverified	The FOS shall provide the capability to display a list of existing reports.		08777
	F-FUI-03035	unverified	The FOS shall provide the capability to initiate the report template builder with a template selected from the template list.		08777
	F-FUI-03040	unverified	The FOS shall provide the capability to initiate the report generator with a template selected from the template list.		08777
	F-FUI-03045	unverified	The FOS shall provide the capability to select a report from the report list for		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			browsing or editing.		
	F-FUI-03050	unverified	The FOS shall provide the capability to display an existing report.		08777
	F-FUI-03055	unverified	The FOS shall provide the capability to print an existing report.		08777
	F-FUI-03060	unverified	The FOS shall provide the capability to edit an existing report.		08777
	F-FUI-03061	unverified	The FOS shall provide the capability to save an existing report.		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-07300	unverified	The FOS shall provide graphs that are capable of displaying the following: a. up to six telemetry values vs. time, or b. up to six telemetry values vs. a telemetry value c. the high and low, red and yellow limits of the telemetry parameters as lines(dotted, dashed or solid) d. telemetry values as a symbol(optional) e. lines between telemetry parameters (optional) shall be displayed as dotted, dashed or solid f. axis lines (displayed or not) g. axis labels h. axis scales		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			i. axis scale labels j. optional grid lines (dotted, dashed or solid) k. title l. current range of time displayed m. total range of time available		
	F-FUI-07305	unverified	The FOS shall allow the user to select up to six telemetry parameters to graph.		08777
	F-FUI-07310	unverified	The FOS shall allow the user to plot data from different times and/or different data sources on a two dimensional graph.		08777
	F-FUI-07315	unverified	The FOS shall display the minimum, current and maximum values of a selected telemetry parameter within the		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			current visible area of the graph.		
	F-FUI-07320	unverified	The FOS shall allow the user to select a telemetry parameter from the graph utilizing a pointing device.		08777
	F-FUI-07325	unverified	The FOS shall allow the user to select a range of times or X values, from the total range of time or X values available, in which to view the data.		08777
	F-FUI-07335	unverified	The FOS shall allow the user to zoom in on the graph.		08777
	F-FUI-07340	unverified	The FOS shall allow the user to zoom out from the graph.		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-07345	unverified	The FOS shall allow the user to select a line style with which a telemetry parameter is displayed.		08777
	F-FUI-07350	unverified	The FOS shall allow the user to select a symbol with which a telemetry parameter is displayed.		08777
	F-FUI-07355	unverified	The FOS shall allow the user to specify whether the graph shall display a grid.		08777
	F-FUI-07360	unverified	The FOS shall allow the user to specify the grid line style (dotted, dashed or solid).		08777

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-07365	unverified	The FOS shall allow the user to specify the grid granularity.		08777
	F-FUI-07375	unverified	The FOS shall allow the user to specify limit line style (dotted, dashed, or		08777
	F-FUI-07380	unverified	The FOS shall allow the user to select the axis granularity.		08777
	F-FUI-07385	unverified	The FOS shall allow the user to select the axis scale labels.		08777
	F-FUI-07388	unverified	The FOS shall allow the user to specify the axis labels.		08777

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Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-07390	unverified	The FOS shall allow the user to specify the graph title.		08777
	F-FUI-07391	unverified	The FOS shall allow the user to insert a graph legend.		08777
	F-FUI-07392	unverified	The FOS shall allow the user to save a graph.		08777
	F-FUI-07394	unverified	The FOS shall print graphs in either landscape or portrait orientation.		08777
	F-FUI-07396	unverified	The FOS shall allow the user to print up		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			to 4 graphs per page.		
	F-FUI-07398	unverified	The FOS shall provide the visual indication that a telemetry value does not exist within the requested time span.		08777
	F-FUI-07400	unverified	The FOS shall provide tables that are capable of displaying the following: a. up to 50 discrete and analog real-time telemetry values over a specified time interval b. the associated time at each interval c. the descriptor or mnemonic of each telemetry value d. title e. current range of time displayed		08777

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-07415	unverified	The FOS shall provide the user with the capability to specify whether the telemetry value is represented by its mnemonic or descriptor.		08777
	F-FUI-09200	unverified	The FOS shall provide the capability to display off-line analysis results in the following output views: a. graph b. table c. analysis report		08777
ANA-2070B					
	F-ANA-03200	unverified	The FOS shall provide the capability to request and access a report for out of limits statistics data at a daily resolution for any time span greater than or equal to one day.		08778

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-03210	unverified	The FOS shall provide the capability to request and access a report out of limits statistics data at monthly resolution for any time span greater than or equal to one month.		08778
	F-ANA-04410	unverified	The FOS shall provide the capability to generate a Parameter Out-of-limits Report for a user specified mission.	A parameter Out-of-limits Report is a report which provides information, on a parameter by parameter basis, regarding limit violations and durations.	08778
	F-ANA-04415	unverified	Each of the out of limits report shall contain the following header information: a. The date and time of the report b. The starting spacecraft time of the data c. The ending spacecraft time of the data		08778

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			d. A list of parameters which are out of limits at the start time of the report		
	F-ANA-04420	unverified	The FOS shall provide for each parameter specified in a request for a Parameter Out-of-limits Report, the following information: a. Spacecraft time for start of every limit violation b. Duration of every limit violation which began within the time span of the report. c. Sum of durations of all limit violations within the duration of the report. d. The type of the limit violation. Violations covered are red-high, red-low, yellow-high, yellow-low, and rail.		08778

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04430	unverified	The FOS shall generate the Parameter Out-of-limits Report for the time interval specified.		08778
ANA-2090B					
	F-ANA-02010	passed	The FOS, by default, shall determine the appropriate data base to use for processing each request for data analysis.		0
	F-ANA-02030	passed	The FOS shall have the capability to utilize more than one valid data base if the time interval requested for data analysis spans an interval during which more than one database was utilized for operations.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-02040	passed	The FOS shall, by default, only use a data base for processing analysis requests during the time interval in which the database was being used operationally.		0
	F-ANA-02050	failed	The FOS shall provide the capability to override the automatic data base selection by the system and process an analysis request using a data base specified by the user.	The user specified database can be any FOS validated database.	08517
	F-ANA-03020	passed	The FOS shall verify that for user supplied start and stop times, the stop time is greater than the start time.		0
	F-ANA-03040	failed	The FOS shall provide notification for every telemetry mnemonic requested		08501

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			for analysis which is not valid for the time interval requested.		
	F-ANA-03050	passed	The FOS shall perform analysis on all requested telemetry parameters which have at least one sampling within the specified time interval.	Types of analysis allowable in an analysis request are defined in section 9.1.9.1.	0
	F-ANA-03060	failed	If a telemetry parameter requested for analysis does not occur within the requested time span, all reports and plots containing a reference to the parameter shall indicate that the parameter was not found.		08640
	F-ANA-03140	passed	The FOS shall check for the existence of all specified mnemonics whenever a new telemetry data base, (start of the request or data base crossover), is	A data base crossover is the point in time whan a new version of the data base replaces the current version and is now considered the operational data	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			encountered during the processing of the data analysis request.	base. The time at which this occurs is maintained in the system thus allowing the appropriate data base to be utilized when analyzing historical data.	
	F-ANA-03150	failed	The FOS shall log a message to the history log if a specified mnemonic is no longer valid after a data base crossover.		08502
	F-ANA-03160	passed	The FOS shall check for the validity of a requested EU conversion (existence of a defined conversion) whenever a new telemetry data base, (start of the request or data base crossover), is encountered during the processing of a data analysis request.		0
	F-ANA-03170	failed	The FOS shall provide notification if a		08503

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			specified mnemonic no longer has a data base defined EU conversion after a data base crossover.		
	F-FUI-09205	passed	The FOS shall provide the capability to save analysis results.		0
	F-FUI-09210	passed	The FOS shall provide the capability to print analysis results.		0
	F-FUI-09215	failed	The FOS shall provide the capability to save analysis output view formats.		08507
	F-FUI-09220	failed	The FOS shall provide the capability to modify analysis output view formats. Format options include the following:		08507

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a. engineering units b. raw values c. time		
	F-RMS-00035	failed	The EOC shall allow EOC operators to specify a version of the project data base to use in processing data.	For real-time data, the default will be the current project data base, and for historical data the default will be the project data base from the corresponding timeframe.	08517
ANA-2100B					
	F-ANA-01025	unverified	The FOS shall be able to access all system generated statistics data files for analysis.	System generated statistics includes MMM statistics based on orbital, daily, monthly, and mission to date intervals, out of limits information based on daily and monthly intervals, and discrete parameter state change information based on daily and monthly intervals.	08779

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-03100	unverified	The FOS shall provide the capability to process a request for telemetry MMM data at daily resolution for any time span greater than or equal to one day.		08779
	F-ANA-03110	unverified	The FOS shall provide the capability to process a request for telemetry MMM data at monthly resolution for any time span greater than or equal to one month.		08779
	F-ANA-03120	unverified	The FOS shall provide the capability process a request for telemetry MMM data at orbit night resolution for any time span greater than or equal to one orbit.		08779
	F-ANA-03125	unverified	The FOS shall provide the capability process a request for telemetry MMM		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			data at orbit day resolution for any time span greater than or equal to one		
	F-ANA-03130	unverified	The FOS shall provide the capability process a request for telemetry MMM data at full orbit resolution for any time span greater than or equal to one orbit.		08779
	F-ANA-03180	unverified	The FOS shall provide the capability to process a request for discrete parameter state change statistics data at daily resolution for any time span greater than or equal to one day.		08779
	F-ANA-03190	unverified	The FOS shall provide the capability to process a request for discrete parameter state change statistics data at monthly resolution for any time span greater than or equal to one month.		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04025	unverified	The FOS shall be able to generate datasets from statistical data.		08779
	F-ANA-04310	unverified	The FOS shall provide the capability to build ASCII reports from the system generated telemetry MMM statistics data.		08779
	F-ANA-05010	unverified	The FOS shall generate and store the following statistics for each telemetry mnemonic: a. Minimum value b. Spacecraft time for the minimum value c. Maximum value d. Spacecraft time for the maximum value e. Mean		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			f. Standard Deviation g. Number of samples		
	F-ANA-05020	unverified	The FOS shall compute statistics for full orbital intervals for each analog telemetry parameter.		08779
	F-ANA-05030	unverified	The FOS shall compute statistics for full orbital intervals for each data base defined derived parameter.		08779
	F-ANA-05031	unverified	The FOS shall compute statistics for orbit day intervals for each analog telemetry parameter.		08779
	F-ANA-05032	unverified	The FOS shall compute statistics for		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			orbit day intervals for data base defined derived parameter.		
	F-ANA-05033	unverified	The FOS shall compute statistics for orbit night intervals for each analog telemetry parameter.		08779
	F-ANA-05034	unverified	The FOS shall compute statistics for orbit night intervals for each data base defined derived parameter.		08779
	F-ANA-05040	unverified	The FOS shall compute statistics for daily intervals for each analog telemetry parameter.	Daily statistics shall be computed by summing the statistics of all full orbits which began within the calendar day.	08779
	F-ANA-05050	unverified	The FOS shall compute statistics for daily intervals for each data base	Daily statistics shall be computed by summing the statistics of all full orbits	08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			defined derived parameter.	which began within the calendar day.	
	F-ANA-05060	unverified	The FOS shall compute statistics for monthly intervals for each analog telemetry parameter.		08779
	F-ANA-05070	unverified	The FOS shall compute statistics for monthly intervals for each data base defined derived parameter.		08779
	F-ANA-05080	unverified	The FOS shall compute statistics for each analog telemetry parameter for the mission to-date.		08779
	F-ANA-05090	unverified	The FOS shall compute statistics for each data base defined derived		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			parameter for the mission to-date.		
	F-ANA-05100	unverified	The FOS shall compute the total number of state changes for each discrete telemetry parameter on a daily basis.		08779
	F-ANA-05110	unverified	The FOS shall compute the total number of state changes for each discrete telemetry parameter on a monthly basis.		08779
	F-ANA-05120	unverified	The FOS shall compute the total number of state changes for each discrete telemetry parameter.		08779
	F-ANA-05130	unverified	The FOS shall compute the total elapsed time spent in each state for		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			each discrete telemetry parameter on a daily basis.		
	F-ANA-05140	unverified	The FOS shall compute the total elapsed time spent in each state for each discrete telemetry parameter on a monthly basis.		08779
	F-ANA-05150	unverified	The FOS shall compute the total elapsed time spent in each state for each discrete telemetry parameter.		08779
	F-ANA-05210	unverified	The FOS shall provide the capability to generate the following statistics for each telemetry parameter specified in the request: a. Minimum value b. Spacecraft time for the minimum		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			value c. Maximum value d. Spacecraft time for the maximum value e. Mean value f. Standard deviation g. Number of samples		
	F-ANA-05250	unverified	The FOS shall compute statistics for a given parameter if the telemetry item is updated within that interval.		08779
	F-ANA-06030	unverified	The FOS shall provide the capability for monitoring and evaluating spacecraft functions, resources, and performance including: a. stored command processing b. spacecraft recorders	The following FOS capabilities provide for the monitoring and evalution of the aforementioned (a-h): 1. state check covers a 2. SSR covers b 3. DSS covers c	08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			c. safe mode processes d. electrical power subsystem e. propulsion subsystem	4. Statistics processing covers d-h.	
	F-DMS-00740	unverified	The EOC shall merge new telemetry packets with existing packets to create a seamless archive.	Real-time and non real-time playback telemetry will be merged to create a seamless archive.	08779
	F-DMS-00750	unverified	The EOC shall insure that the telemetry archive does not contain duplicate data.		08779
	F-DMS-00760	unverified	The EOC shall replace existing poor quality telemetry packets with good quality telemetry packets.		08779
	F-DMS-00840	unverified	The FOS shall provide the capability to		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			retrieve archived ground-telemetry by specifying the following: a. Spacecraft start time b. Spacecraft stop time c. Data source (NCC,EDOS) d. Data type e. Spacecraft Identifier (if applicable)		
	F-DMS-01020	unverified	The EOC shall be capable of retrieving data files.	The EOC will store and retrieve the following data files: a. Absolute time command loads b. Relative time sequence loads c. Spacecraft memory dumps d. Instrument memory dumps e. Flight software loads f. Microprocessor loads g. Ground scripts h. Memory images	08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				i. Spacecraft memory maps	
				j. Load reports	
				k. Integrated load report	
				l. Schedules	
				m. Procedures	
				n. Display definitions	
				o. Room definitions	
				p. Report formats	
				q. User configuration defaults	
				r. Analysis request files	
				s. Operator guides	
				t. Operator procedures	
				u. Spacecraft technical documentation	
				v. Orbit statistics	
				w. Daily statistics	
				x. Monthly statistics	
				y. EOS mission star catalog	

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				z. EOS Brouwer-Lyddane elements aa. Long term science plans bb. Long term instrument plans cc. Long term spacecraft operations plan dd. Orbit data ee. Instrument activity lists ff. Spacecraft subsystem activity lists gg. TDRSS Schedules hh. Oscillator frequency report ii. Onboard navigation evaluation report jj. Filter tuning parameters kk. Mass and center of Mass location estimates	
	F-FUI-09110	unverified	The FOS shall provide the capability to		08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			select statistical data per selected TLM parameter when building an analysis request for historical data analysis. Statistics shall be one of the following: a. system generated b. min-max reduced, with a specified		
	F-TLM-01520	unverified	The EOC shall be capable of receiving and storing spacecraft recorder playback housekeeping telemetry at rates up to 1.544 Mbps for each EOC controlled spacecraft.	Spacecraft recorder playback data is received rate-buffered from EDOS (via file transfer).	08779
	F-TLM-01540	unverified	The FOS shall notify the user when the completion of a spacecraft recorder playback collection is recognized.	Storage of spacecraft recorder data is stopped at this time.	08779

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-11520	unverified	The EOC shall be capable of receiving and storing AM-1 spacecraft recorder playback housekeeping telemetry from EDOS as a rate buffered file.	The 512 Kbps rate will be used during emergency operations through the S-band Contingency Ground Stations. The nominal AM-1 playback rate will be 256 Kbps. The spacecraft recorder data will be captured at EDOS and may be transmitted to the EOC post-contact at rates up to 1.544 Mbps.	08779
ANA-2110B					
	F-ANA-01020	passed	The FOS shall be able to access all user generated MMM statistics data files for analysis.	MMM refers to the minimum value, the maximum value and the mean value for a defined time interval. Along with these values, the standard deviation and number of samples will also be maintained.	0
	F-ANA-03015	passed	The time span for the analysis shall be one second or greater.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-03030	failed	The FOS shall notify the user of any mnemonic that has been requested for analysis and is found to be invalid for the specified mission.		08555
	F-ANA-03070	passed	The FOS shall by default use data flagged as good quality in routine analysis.		0
	F-ANA-03080	passed	The FOS shall allow the user to request the use of data with questionable quality in routine analysis.		0
	F-ANA-05220	partially passed	The FOS shall provide the capability to compute the statistics for a user defined interval of greater than or		08554

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			equal to one second and less than or equal to one day.		
	F-DMS-00770	partially passed	The FOS shall provide the capability to retrieve archived telemetry by specifying the following: a. Spacecraft start time b. Spacecraft stop time c. deleted d. Data type (housekeeping, health and safety, standby) e. Spacecraft Identifier (if applicable)		08639,06353
	F-DMS-00790	failed	The EOC shall initiate processing of off-line telemetry data from the EOC archive within 5 seconds upon receipt of a telemetry request.	If a telemetry request is delayed due to process load, then this requirement applies when processing the telemetry request is started (e.g., if other concurrent telemetry requests are made). Reference level 3 requirement	08638

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				DADS-3125 for performance requirements for long-term data.	
	F-DMS-01010	passed	The EOC shall be capable of storing data files.	This requirement will be used for disk sizing.	0
	F-DMS-01020	partially passed	The EOC shall be capable of retrieving data files.	The EOC will store and retrieve the following data files: a. Absolute time command loads b. Relative time sequence loads c. Spacecraft memory dumps d. Instrument memory dumps e. Flight software loads f. Microprocessor loads g. Ground scripts h. Memory images i. Spacecraft memory maps j. Load reports	08637

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				k. Integrated load report	
				l. Schedules	
				m. Procedures	
				n. Display definitions	
				o. Room definitions	
				p. Report formats	
				q. User configuration defaults	
				r. Analysis request files	
				s. Operator guides	
				t. Operator procedures	
				u. Spacecraft technical documentation	
				v. Orbit statistics	
				w. Daily statistics	
				x. Monthly statistics	
				y. EOS mission star catalog	
				z. EOS Brouwer-Lyddane elements	
				aa. Long term science plans	

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				bb. Long term instrument plans cc. Long term spacecraft operations plan dd. Orbit data ee. Instrument activity lists ff. Spacecraft subsystem activity lists gg. TDRSS Schedules hh. Oscillator frequency report ii. Onboard navigation evaluation report jj. Filter tuning parameters kk. Mass and center of Mass location estimates	
	F-FUI-09110	passed	The FOS shall provide the capability to select statistical data per selected TLM parameter when building an analysis request for historical data analysis.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Statistics shall be one of the following: a. system generated b. min-max reduced, with a specified		
ANA-2120B					
	F-ANA-01030	unverified	The FOS shall allow the user to access a previously saved dataset for	A dataset is defined to be user specified data from a contiguous period of time from a single spacecraft. The dataset will have a standardized format which is described in the FOS Operations Tools Manual.	08771
	F-ANA-04040	unverified	The FOS shall provide the capability to generate datasets from data base defined derived parameters.		08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04315	unverified	The FOS shall provide the capability to build ASCII reports from the user specified telemetry MMM statistics data.		08771
	F-ANA-04320	unverified	Each statistics report shall contain the following header information: a. The date and time of the report b. The starting spacecraft time of the data c. The ending spacecraft time of the data d. The interval type of the MMM statistics (if applicable)		08771
	F-ANA-04330	unverified	The FOS shall provide the mnemonic name for each telemetry item specified in a statistics report.		08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-04340	unverified	The FOS shall provide the capability to include the following information for each telemetry item specified as part of the telemetry statistics report: a. Minimum value within each time interval b. Spacecraft time for each minimum value reported c. Maximum value within each time interval d. Spacecraft time for each maximum value reported e. Mean value for each time interval f. Standard deviation g. Number of samples occurring within each time interval		08771
	F-ANA-08010	unverified	The FOS shall provide the capability to	FOS will process up to 20	08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			process up to 20 simultaneous requests for data analysis	simultaneous analysis requests for the entire FOS system; up to 3 simultaneous requests for a single FOS user station/IST.	
	F-ANA-08020	unverified	The FOS shall provide the capability to maintain a queue of up to 10 requests for data analysis.		08771
	F-ANA-08030	unverified	The FOS shall provide the capability to delete a request from the queue.		08771
	F-ANA-08040	unverified	The FOS shall provide the capability to estimate the percentage complete of a data analysis request.		08771

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-08050	unverified	The FOS shall provide the capability to report the status of a data analysis request. The status can be one of the following: a. Request submitted b. Request waiting in queue c. Request currently being processed d. Request complete		08771
	F-ANA-08060	unverified	The FOS shall provide the capability to selectively decommutate only those parameters which are required to fulfill the analysis request.		08771
	F-FUI-03200	unverified	The FOS shall provide a utility that allows a user to filter items according to any of the following: a. spacecraft b. spacecraft subsystem		08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			c. instrument d. ground system		
	F-FUI-03205	unverified	The FOS shall allow the user to specify one or more spacecraft Ids as a filter criteria.		08771
	F-FUI-03215	unverified	The FOS shall allow the user to specify one or more instruments as a filter criteria.		08771
	F-FUI-03220	unverified	The FOS shall allow the user to specify one or more ground systems as a filter criteria.		08771
	F-FUI-03225	unverified	The FOS shall allow the user to specify one or more subsystems associated		08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			with a spacecraft Id as a filter criteria.		
	F-FUI-03230	unverified	The FOS shall allow the user to specify one or more instruments associated with a spacecraft Id as a filter criteria.		08771
	F-FUI-09140	unverified	The FOS shall provide the capability to display a request queue of up to 10 submitted analysis requests.	The request queue will display the following data for each request: _a. request name _b. estimated completion time of requests gathering archived/local data _c. estimated completion time for the decom processing of reqeusts (if	08771
	F-FUI-09145	unverified	The FOS shall provide the capability to assign priority to a pending request in the request queue.	Requests with the same priority will be processed on FIFO basis.	08771

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09150	unverified	The FOS shall provide the capability to delete a request from the request queue display.		08771
	F-FUI-09160	unverified	The FOS shall provide the capability to select output products for a completed analysis request.	The output products that can be selected are graphs and tables.	08771
	F-FUI-09225	unverified	The FOS shall provide the capability to use existing data sets as input for analysis requests.		08771
	F-FUI-09410	unverified	The FOS shall provide the following output views for real-time analysis requests:	Requirements for alphanumeric telemetry displays are in 9.1.7.2, real-time graphs in 9.1.7.3 and real-time	08771

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a. alphanumeric telemetry b. real-time graph c. real-time table d. info window	tables in 9.1.7.4.	
	F-FUI-09415	unverified	The FOS shall provide the capability to build an analysis request on real-time data that contain the following: a. spacecraft Id b. spacecraft subsystem/instrument c. telemetry parameters d. real-time output views e. output view formats		08771
ASTR-2000B					
	F-PAS-10010	passed	The FOS shall provide a list of ASTER activities that could not be included in the AM-1 mission schedule to the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			ASTER ICC.		
	F-PAS-10100	passed	The FOS shall be able to receive DAR observation numbers.		0
	F-PAS-10105	passed	The FOS shall provide the capability for an authorized user to determine whether an activity is associated with an ASTER DAR.		0
	F-PAS-10110	passed	The FOS shall provide the capability to determine the observation number for an activity that is associated with an ASTER DAR.		0
	F-PAS-10300	passed	The FOS shall receive a list of ASTER activities from the ASTER ICC as specified in the ASTER ICC ICD.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-PAS-10305	failed	The FOS shall provide the AM-1 mission schedule to the ASTER ICC as specified in the ASTER ICC ICD.		08545
	F-PAS-10312	passed	The FOS shall provide AM-1 resource allocations to the ASTER ICC.	This allows ASTER to determine how much data buffer is available to them, when they can slew telescopes, whether power is limited, etc.	0
	F-PAS-10450	passed	The FOS shall provide the Detailed Activity Schedule start and end times to the ASTER ICC.		0
	F-PAS-10570	passed	The FOS shall be able to schedule a list of 200 ASTER activities within 30 minutes after being submitted by the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			ASTER ICC.		
	F-PAS-10575	passed	The FOS shall be able to return feedback of activities that could not be scheduled or that violate constraints within 40 minutes after being submitted by the ASTER ICC.		0
CMD-2000B					
	F-RMS-01010	passed	The EOC shall provide the capability to authorize an EOC operator to command an EOC spacecraft.		0
	F-RMS-01020	passed	The EOC shall ensure a single point of command for a given spacecraft.		0
	F-RMS-01030	passed	The EOC shall accept, validate, and		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			process EOC operator requests to acquire the spacecraft command privilege.		
CMD-2001B					
	F-CMD-02110	passed	The EOC shall assemble standard packets from the command structures formatted for on board execution.	This packet format is specified in CCSDS 202.0-B-2, Telecommand Part 2 Data Routing Service, of November, 1992.AM-1 command packet format is defined in ICD-106.	0
	F-CMD-02120	passed	The EOC shall encase packets within a command link transmission unit (CLTU).	This is specified in CCSDS 202.0-B-2, Telecommand Part 2 Data Routing Service, of November 1991.	0
	F-CMD-02125	passed	The EOC shall monitor command link control words (CLCWs) from the spacecraft to ascertain status of the	This is specified in CCSDS 202.0-B-1, Telecommand Part 2.1 Command Operation Procedures, of October	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command link.	1991.	
	F-CMD-02130	passed	The EOC shall support the generation of FARM control commands.	These are specified in CCSDS 202.0-B-1, Telecommand Part 2.1 Command Operation Procedures, of October 1991.	0
	F-CMD-02135	passed	The EOC shall append the necessary acquisition sequence to the CLTU(s) prior to transmission to EDOS.	For the Physical Layer Operations Procedure-1 (PLOP-1) the acquisition sequence will precede each CLTU. For the Physical Layer Operations Procedure-2 (PLOP-2) the acquisition sequence will precede a group of one or more CLTUs.	0
	F-CMD-02140	passed	The EOC shall append the necessary gap to the CLTU prior to transmission to EDOS.	For the Physical Layer Operations Procedure-1 (PLOP-1) the gap will follow each CLTU. For the Physical Layer Operations Procedure-2	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				(PLOP-2) no gap is required.	
	F-CMD-11226	passed	The EOC shall convert all command data to NRZ-M format including the data to be transmitted, the synchronization bits, and the tracking bits.		0
	F-CMD-12240	passed	The EOC shall accept user supplied binary (hex) formatted commands.	Other than the critical prompt, neither validation nor verification is provided for commands entered in binary format.	0
	F-CMD-12245	passed	The EOC shall generate commands in 1553-B format.	This format is specified in ICD-106 of 19 April 1994. Also note that the CTIU commands are formatted in 1553-B format.	0
	F-CMD-13230	passed	The EOC shall treat commands entered in binary (hex) format as critical		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			commands.		
	F-CMD-14313	passed	The EOC shall address all commands to the active CTIU by default.		0
	F-FOS-00315	passed	The EOC shall provide commands to the EOS spacecraft simulators.	Reference the Interface Control Document between the EOC and Spacecraft Simulator for specifics pertaining to this interface.	0
CMD-2010B					
	F-FUI-05300	passed	The FOS shall provide the capability to display the ground scripts corresponding to a user - specified portion of the continuous ground		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			schedule.		
	F-FUI-05315	passed	The FOS shall provide a user the capability to display the contents of a ground script with expanded procedures.		0
	F-FUI-05335	passed	The FOS shall provide a user the capability to print a ground script.		0
	F-FUI-05340	passed	The FOS shall provide a user the capability to print a ground script with expanded procedures.		0
	F-FUI-06300	passed	The FOS shall display the following information for the active ground script: a. ground script time frame (UTC start	Command Confirmation Mode, when enabled, requires the CAC to issue a 'Send' directive for each command directive.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			and stop time) b. ground script status (active or suspended) c. spacecraft Id d. (deleted) e. (deleted) f. command confirmation mode g. bias time		
	F-FUI-06305	passed	The FOS shall allow a user to view executed ground script directives, the current ground script directive, and future ground script directives.		0
	F-FUI-06315	passed	The FOS shall execute local directives encountered in the ground script at the specified execution time.	The current system time may become later than the specified execution time of a directive in the ground script. This situation may occur if the ground script is suspended by the CAC for an	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				extended period of time. If this happens, directives will be executed as quickly as possible until the execution time and the system time are synchronized.	
	F-FUI-06320	passed	The FOS shall process ground script command directives for the spacecraft and its instruments at the specified execution time.	Processing a command directive includes sending the directive to the commanding Subsystem where it is prepared for uplink to the spacecraft. The Commanding Subsystem performs the appropriate verification checks and returns the corresponding directive status to the command controller for display to a user.	0
	F-FUI-06330	passed	The FOS shall display the following verification status for command directives depending upon whether the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			corresponding verification mode is enabled: a. prerequisite state check pass/fail b. receipt of command at the spacecraft/instrument pass/fail (command verification) c. execution of the command by the spacecraft/instrument pass/fail (telemetry verification)		
	F-FUI-06360	passed	The EOC shall provide the CAC the capability to select a directive in the ground script.		0
	F-FUI-06365	passed	The EOC shall provide the CAC the capability to disable directives in the ground script.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-06370	passed	The EOC shall provide the CAC the capability to enable directives in the ground script.		0
	F-FUI-06375	passed	The EOC shall provide the CAC the capability to transfer execution to a directive in the ground script.	The EOC will allow the user to select a non-executed directive in the ground script and jump to the selected directive after the execution of the current directive is successfully completed.	0
	F-FUI-06395	partially passed	The EOC shall provide the CAC the capability to set (on/off) the command confirmation mode.		08474
	F-FUI-06400	passed	The EOC shall provide the CAC the capability to confirm pending commands when command		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			confirmation is enabled.		
	F-FUI-06405	passed	The EOC shall provide the CAC the capability to cancel pending commands when command confirmation is enabled.	The FOS will implement a command confirmation mode. If enabled, this mode will queue each command directive (i.e., place them into a pending command buffer) until the CAC confirms or cancels the directive.	0
	F-FUI-06410	passed	The EOC shall provide the CAC the capability to terminate the current ground script.		0
	F-FUI-06415	passed	The EOC shall provide the CAC the capability to start a ground script.		0
	F-FUI-06420	passed	The EOC shall provide the CAC the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			capability to suspend execution of the ground script.		
	F-FUI-06425	passed	The EOC shall provide the CAC the capability to resume execution of the ground script.		0
	F-FUI-06430	passed	The EOC shall provide the CAC the capability to merge procedures with the current executing ground script directives.		0
	F-FUI-06435	passed	The EOC shall provide the CAC the capability to merge a directive with the current executing ground script directives.		0
	F-FUI-06440	passed	The FOS shall provide a user the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			capability to search the executing ground script for a specified procedure reference.		
	F-FUI-06445	passed	The FOS shall provide a user the capability to search the executing ground script for a specified command.		0
	F-FUI-06450	passed	The FOS shall provide a user the capability to search the executing ground script for a specified time stamp.		0
	F-FUI-06455	passed	The FOS shall provide a user the capability to search the executing ground script for a specified text		0
	F-FUI-06460	passed	The FOS shall provide a user the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			capability to print the current executing ground script.		
	F-FUI-06465	passed	The EOC shall save the "as-used" ground script and make it available for future analysis.		0
	F-FUI-06470	passed	The FOS shall display all commands manually input.	This capability is commonly referred to as "command shadowing" by the Flight Operations Team.	0
CMD-2015B					
	F-CMD-01317	passed	The EOC shall be capable of transmitting commands from a ground script.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-06310	passed	The FOS shall display a count-down timer for the next three directives in the current ground script.		0
	F-FUI-06335	passed	The FOS shall suspend ground script execution if an enabled prerequisite state check fails.	Verification checking only applies to command directives. If the current directive is a local directive, the next directive will become the current directive as soon as the local directive is executed.	0
	F-FUI-06337	passed	The EOC shall provide the capability to request an override of a prerequisite state check failure.		0
	F-FUI-06340	passed	The FOS shall suspend ground script execution if any of the enabled verification checks fail.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-06345	passed	The EOC shall provide the CAC the capability to set (on/off) prerequisite state checking.		0
	F-FUI-06350	passed	The EOC shall provide the CAC the capability to set (on/off) command verification checking.	Turning off command verification checking allows execution of the ground script to proceed withoug waiting for a command verification status. Command verification checking will always be performed.	0
	F-FUI-06355	passed	The EOC shall provide the CAC the capability to set (on/off) telemetry verification checking.	Turning off telemetry verification checking allows execution of the ground script to proceed without waiting for a telemetry verification status. Telemetry verification checking will always be performed.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-06380	passed	The EOC shall provide the CAC the capability to apply a bias time to directives in the ground script.		0
	F-FUI-06385	passed	The EOC shall provide the CAC the capability to confirm a critical command directive.		0
	F-FUI-06390	passed	The EOC shall provide the CAC the capability to cancel a command directive.		0
CMD-2030B					
	F-CMD-01180	unverified	The FOS shall have the capability to configure the EOC to set and unset the test flag in Command Data Blocks sent		08691

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			to EDOS.		
	F-CMD-02210	passed	The EOC shall validate all real time commands and ensure that the commands accepted conform to the command definition.	These commands may be issued from either a ground script, a procedure, or as operator input.	0
	F-CMD-02215	passed	The EOC shall provide the capability to assemble commands from command mnemonic requests.		0
	F-CMD-02220	passed	The EOC shall assign default values, if available, to command data portions if not specified by the user.		0
	F-CMD-02225	passed	The EOC shall provide the capability to assemble commands with submnemonic specifications.	Commands with submnemonic specifications are also known as serial magnitude, nondiscrete, or analog	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				commands in other control centers.	
	F-CMD-02230	passed	The EOC shall use a predefined default value for a submnemonic when one is not explicitly provided.		0
	F-CMD-02235	passed	The EOC shall require submnemonic values for commands having submnemonic specifications, but lacking default values.	Such a command will be rejected if the command is issued without specifying a value for the submnemonic.	0
	F-CMD-02240	passed	The EOC shall provide the user the capability to view the most current command in binary (numeric) format.		0
	F-CMD-02245	passed	The EOC shall accept command submnemonic values specified as states.	The FOS will convert the user specified state value (character format) into its corresponding binary	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				pattern as specified in the database. Commands containing submnemonic states not specified in the database for that submnemonic will be rejected, as per requirement F-CMD-02210.	
	F-CMD-02250	partially passed	The EOC shall accommodate up to eight (8) states per command.		08688
	F-CMD-02255	unverified	The EOC shall allow for a third order polynomial conversion of submnemonic values.	The FOS will calculate the binary pattern from the user specified (integer or real) submnemonic value using a polynomial equation defined in the database for that specific submnemonic.	08687
	F-CMD-02260	passed	The EOC shall be capable of range	For submnemonics using polynomial	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			checking submnemonic values entered by the user.	conversions, range checking is performed on the binary value obtained from the conversions.	
	F-CMD-02265	failed	The EOC shall permit the user to override the range check of submnemonic values when the values fail the range check.		08356
	F-CMD-03110	unverified	The EOC shall provide the capability to verify up to four (4) telemetry points prior to command transmission.	The database will specify which commands are to be prerequisite checked, and will provide for specification of a single range of acceptable discrete or analog values for each telemetry point.While prerequisite state checking cannot be performed on commands within a stored command load, the CMS/Planning and Scheduling	08352

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				subsystems do command constraint check analysis as part of the stored command building process.	
	F-CMD-03115	passed	The EOC shall allow for overriding (disablement) of prerequisite checking.		0
	F-CMD-03125	passed	The EOC shall suppress transmission of commands which fail prerequisite checking.		0
	F-CMD-03127	passed	The EOC shall allow the operator to override a command prerequisite state check failure.	Upon prerequisite state check failure, the operator will be prompted for override permission. If the operator's response indicates override, processing of the command will	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				continue as though prerequisite check override had been enabled at the time the command was issued.	
	F-CMD-03130	passed	The EOC shall deem as failing prerequisite check those commands referencing telemetry points that have static data values.	Static data values are values which are not current; no data has been recently received.	0
	F-CMD-03133	passed	The FOS shall report the status of each prerequisite check to the user.		0
	F-CMD-03135	partially passed	The FOS shall report to the user the mnemonic, required values, current values, and current state which cause a prerequisite check to fail.		08382
	F-CMD-03210	passed	The EOC shall determine a specific	This definition is contained within the	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command as critical based on a its definition.	data base.	
	F-CMD-03215	passed	The EOC shall require a user authorization (allow or cancel) prior to uplinking a critical command, regardless of its origin (operator input, command procedure, or ground script).		
	F-CMD-03225	passed	The EOC shall prompt the user for a critical command authorization.	The user will be required to respond to critical command prompt before any further activities can be performed.	0
	F-CMD-03230	failed	The EOC shall check the binary pattern of all outgoing commands against a user-defined, configuration controlled hazardous command table and halt transmission whenever a match is		08355

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			found.		
	F-CMD-03410	passed	The EOC shall verify prior to acceptance of a command that the command was issued from the user currently having the command authority.	This insures that each spacecraft has only a single point of command.	0
	F-CMD-04115	passed	The EOC shall archive all uplinked information, in the format transmitted from the EOC.	I.E. The command blocks will be archived in the format sent to EDOS.	0
	F-CMD-04120	passed	The FOS shall notify the user when a command is transmitted.		0
	F-CMD-05115	passed	The EOC shall notify the operator of the status of each command uplinked, as success or fail.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-06470	passed	The FOS shall display all commands manually input.	This capability is commonly referred to as "command shadowing" by the Flight Operations Team.	0
CMD-2050B					
	F-CMD-01325	passed	The EOC shall be capable of transmitting predefined Absolute Time Command (ATC) loads.		0
	F-CMD-01330	passed	The EOC shall be capable of transmitting predefined Relative Time Sequence (RTS) loads.		0
	F-CMD-01335	passed	The EOC shall be capable of transmitting flight software loads.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-01340	passed	The EOC shall be capable of transmitting table loads.	The table loads may be for either the spacecraft, or an instrument.	0
	F-CMD-01345	passed	The EOC shall be capable of transmitting instrument microprocessor loads.		0
	F-CMD-03220	passed	The EOC shall require a user to enter a single authorization (allow or cancel) prior to uplinking a stored command load containing critical commands.		0
	F-CMD-03310	passed	The EOC shall verify existence of the load upon receipt of a load uplink request.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-03315	passed	The EOC shall check load data by verifying pertinent load parameters to ensure proper load identification.	Pertinent load parameters include spacecraft id, date/time window and destination.	0
	F-CMD-04130	partially passed	The FOS shall notify the user when a load is transmitted.		08360
	F-CMD-05250	unverified	The EOC shall provide the capability to verify via telemetry the successful receipt of a load.		08544
	F-CMD-05255	unverified	The FOS shall notify the operator of load telemetry verification status.	Supplemental information available for display for the load telemetry verification status includes the CRC from the load initiate command, and (if	08544

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				available) a display of the CRC telemetered from the spacecraft.	
	F-CMD-05510	unverified	Stored commands shall be telemetry verified as they execute on board the spacecraft during a real time contact.		08544
	F-CMD-15515	unverified	The EOC shall provide the capability to verify via telemetry the successful dispatch of absolute time stored commands.		08544
	F-CMD-15520	unverified	The EOC shall provide the capability to verify via telemetry the successful dispatch of relative time stored commands.		08544

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-01165	passed	The EOC shall be capable of transmitting commands to the spacecraft simulator.		0
	F-CMD-01230	passed	The EOC shall provide the capability to uplink commands at a rate selected by the user from a set of valid rates.		0
	F-CMD-01310	passed	The EOC shall permit an authorized EOC operator to issue individual commands, in real time.		0
	F-CMD-01320	passed	The EOC shall merge spacecraft and instrument commands, and spacecraft and instrument memory loads into one uplink stream.	An active load must be killed before operator commands will be accepted.	0
	F-CMD-04120	passed	The FOS shall notify the user when a		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command is transmitted.		
	F-CMD-04210	passed	The EOC shall provide for the automatic retransmission of CLTUs once it has been determined that command(s) have been lost.		0
	F-CMD-04215	passed	The EOC shall implement retransmission such that all commands transmitted since the last command known to be received and accepted at the spacecraft shall be retransmitted in the same order as originally transmitted.		0
	F-CMD-04220	passed	The EOC shall provide a predefined, operator overridable retransmission count to limit the number of		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			retransmissions attempted.		
	F-CMD-04225	passed	The EOC shall permit the operator to disable command retransmission.	Specifying a retransmission count value of zero effectively disables retransmission.	0
	F-CMD-04230	passed	The EOC shall provide the capability to set the next expected ground frame sequence number to a user specified value.	This capability is provided to permit resynchronization of the ground and spacecraft frame sequence numbers. It is permitted only when command transmission is not in progress.	0
	F-CMD-05120	passed	The EOC shall provide the capability for the user to reconfigure the channel selection (I/Q) of CLCWs for command receipt verification processing.		0
	F-CMD-11210	passed	The EOC shall uplink at a rate of 10 kilobits per second (kbps) when the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			control center is configured for transmission utilizing SN SSA service and the AM1 High Gain antenna.		
	F-CMD-11211	passed	The EOC shall uplink at a rate of 125 bits per second (bps) when the control center is configured for transmission utilizing SN SSA service and the AM1 Omni antenna.		0
	F-CMD-11212	passed	The EOC shall uplink at a rate of 1 kilobits per second (kbps) when the control center is configured for transmission utilizing SN SMA service and the AM1 High Gain antenna.		0
	F-CMD-11215	passed	The EOC shall uplink at a rate of 2 kbps when the EOC is configured for transmission utilizing the S-band		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Contingency Ground Stations.		
	F-CMD-12130	passed	The EOC shall utilize a single virtual channel for uplink.		0
	F-CMD-14310	failed	The EOC shall be capable of addressing commands to either of the two Command and Telemetry Interface Units (CTIU).		08685
	F-CMD-14315	failed	The EOC shall provide the user with the capability to select either of the two CTIUs as the active CTIU.		08685
	F-CMS-11410	passed	The EOC shall format flight software loads for uplink according to the CCSDS Telecommand packet protocols as specified in ICD-106.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FOS-00320	passed	The EOC shall use Ebnet for data communications for the following types of data: a. Real-time telemetry data, rate-buffered telemetry data b. Command data c. TDRSS schedule requests and TDRSS schedules d. Data exchange with the FDF, NCC and EDOS	Reference the Interface Control Document between the EOC and Ebnet for specifics pertaining to this interface.	0
	F-FOS-00347	passed	The EOC shall send command data to EDOS for subsequent uplink to the EOS spacecraft.	Reference the Interface Control Document between the EOC and EDOS for specifics pertaining to this interface.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-05110	partially passed	The EOC shall provide the capability to verify via COP-1 the successful receipt of real time commands by the spacecraft.	Only type AD commands are verified through COP-1 processing.	08699
	F-CMD-05115	passed	The EOC shall notify the operator of the status of each command uplinked, as success or fail.		0
	F-CMD-05120	passed	The EOC shall provide the capability for the user to reconfigure the channel selection (I/Q) of CLCWs for command receipt verification processing.		0
	F-CMD-05220	passed	The EOC shall provide the capability to verify via telemetry the successful execution of spacecraft commands by checking in real time the status of a	The database will specify which commands are to be telemetry verified, and will provide for specification of a single range of acceptable discrete or	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			single telemetry point.	analog values for the telemetry point.	
	F-CMD-05225	passed	The FOS shall notify the operator of spacecraft command telemetry verification status.		0
	F-CMD-05230	passed	The EOC shall provide the capability to verify via telemetry the successful execution of instrument commands.		0
	F-CMD-05235	passed	The FOS shall notify the operator of instrument command telemetry verification status.		0
	F-CMD-05245	passed	The EOC shall allow a pre-defined duration time after receipt verification before determining that a command has	The pre-determined time is defined per command, and is based upon onboard execution time; transmission time is not	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			failed telemetry verification.	taken into account. This is because the verification wait period does not begin (in real time) until after the CLCW has been received; the transmission delay period for the CLCW is identical to that for the telemetry, and this accounts for the transmission delay.	
	F-CMD-05247	passed	The EOC shall check telemetry values for all outstanding commands needing telemetry verification at intervals of no more than a pre-defined number of seconds.	This gives the EOC the capability to determine that a command is telemetry verified, prior to the pre-defined duration time. The pre-defined duration is specified in the database. For example, if the duration time for a particular command is one minute and the interval time is specified as five seconds, the command could be	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				telemetry verified in as little as five seconds after uplink verification. This same command, however, would not be considered to have failed telemetry verification unless the one minute duration lapses without the command being telemetry verified.	
	F-CMD-15245	passed	The EOC shall allow a pre-defined duration time of up to one minute after receipt verification before determining that a command has failed telemetry verification.	The pre-determined time is defined per command, and is based upon onboard execution time; transmission time is not taken into account. This is because the verification wait period does not begin (in real time) until after the CLCW has been received; the transmission delay period for the CLCW is identical to that for the telemetry, and this	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				accounts for the transmission delay.	
CMS-2000B					
	F-CMD-01150	passed	The FOS shall use and maintain a unique set of AM1 command mnemonics for aborting dumps.	The same command mnemonic is not used for dump initiate and dump abort.	0
	F-CMS-01710	partially passed	The EOC shall maintain a ground reference image of spacecraft		08738
	F-CMS-01715	partially passed	The EOC shall update the ground reference image by overwriting the appropriate portion of the ground reference image with a load image when the load has been successfully uplinked.		08738

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-01720	passed	The EOC shall provide the capability to create a memory dump image from collected dump telemetry data.		0
	F-CMS-01735	partially passed	The EOC shall provide the capability to overlay a portion of the ground reference image with a memory dump image or load image at user request.		08738
	F-CMS-01740	partially passed	The FOS shall provide the capability to compare a memory image to another memory image.	This capability will ordinarily be used to compare a memory dump image to the ground reference image. It may also be used to compare a dump image to a load image or another dump image, or to compare a load image to another load image.	08543
	F-CMS-01743	failed	The EOC shall provide the capability to		08542

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			use a mask to exclude certain areas of memory from comparison.		
	F-CMS-01745	passed	The EOC shall notify the user via an event message of the status of the memory dump comparison.		0
	F-CMS-01750	passed	The EOC shall provide the capability to generate a report listing all discrepancies found during a memory dump comparison.		0
	F-CMS-01760	partially passed	The EOC shall provide the capability to generate a Memory Image Report listing the memory location (address) and contents of a user specified area of spacecraft memory.	A Memory Image Report can be based on a ground reference image, a load image, or a dump image.	08738

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-01765	failed	The EOC shall provide the capability to generate a report of table contents based on a dump image of a table.	The table must be defined in the PDB.	08737
	F-CMS-01770	failed	The EOC shall provide the capability to compare contents of a table dump image to predefined default values for the table.	The table and default values must be defined in the PDB.	08737
	F-CMS-01775	failed	The EOC shall provide the capability to generate a table load content based on a dump image of a table.		08737
	F-CMS-11720	passed	The EOC shall provide the capability to generate a report of intermediate SUROM results based on a memory dump.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-01710	passed	The EOC shall be capable of accepting and storing the downlinked spacecraft or instrument computer memory dump.	For a given spacecraft, the spacecraft and instrument memory dumps are assumed to be of identical format and will be handled by the EOC in a similar manner.	0
	F-TLM-01715	passed	The EOC shall detect the start of a computer memory dump and collect the dumped memory data (including fill).		0
	F-TLM-01720	passed	The EOC shall store each computer memory dump collection separately.		0
	F-TLM-01725	passed	The FOS shall notify the user when the start of a computer memory dump collection is recognized.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-01730	passed	The FOS shall notify the user when the completion of a computer memory dump collection is recognized.		0
CMS-2040B					
	F-CMD-03320	passed	The FOS shall notify the user of load validation failures.		0
	F-CMS-01010	passed	The FOS shall provide the capability to build the content of a table load.	Table load contents will be built by combining user input with a table definition in the PDB.	0
	F-CMS-01020	passed	The FOS shall provide the capability to build the content of a table load based on a previously defined table content.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-01030	passed	The FOS shall provide the capability to validate the contents of a table load.	The FOS will validate table load contents using the table definition in the PDB.	0
	F-CMS-01110	passed	The EOC shall provide the capability to generate a table load from a valid table load content.		0
	F-CMS-01120	passed	The EOC shall provide the capability to convert each field of the table from its table load contents form to its spacecraft usable form.	Each field will be converted in accordance with its definition in the PDB.	0
	F-CMS-01130	passed	The EOC shall generate and append to the table load all necessary load control commands.	Examples of load control commands may include: load initiate command, select table command, load commit command, and buffer switch command. The number, type, and	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				format of load control commands are discussed in the mission-specific volume.	
	F-CMS-01150	passed	The EOC shall generate a table load report whenever a table load is generated.	All load reports generated will be made available to the IOT through use of the IST.	0
	F-CMS-01160	passed	The EOC shall provide the capability to include in the table load report: a. Load name b. Load type c. Valid uplink period e. Load size in bytes f. Starting and ending memory location g. Contents of the load in hex, and		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-11170	passed	The FOS shall use and maintain a standard set of AM1 load initiate mnemonics.		0
	F-CMS-11185	passed	The EOC shall format table loads for uplink according to the CCSDS Telecommand packet protocols as specified in ICD-106.		0
	F-CMS-11190	passed	The EOC shall prepend a load initiate command to the table load.	The load initiate includes the applicable CRC or checksum. SSST table loads use 16-bit checksum. All other spacecraft table loads use the 16-bit CCSDS CRC.	0
	F-DMS-01405	passed	The FOS shall provide the capability to search the load catalog based on any of the load catalog fileds.	Load catalog fields include but are not limited to the load name, the load type, the valid uplink period, the schedule	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				uplink times, the actual uplink time, and the spacecraft subsystem.	
	F-FUI-05100	passed	The FOS shall provide an authorized user the capability to enter table data using a pre-defined template.	Each type of table load will have a data base defined template.	0
	F-FUI-05105	passed	The FOS shall provide an authorized user the capability to enter table data into a template using the data from an existing table load.		0
	F-FUI-05110	passed	The FOS shall validate the table data entered by the user.		0
	F-FUI-05115	passed	The FOS shall display any validation errors that are detected.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-05120	passed	The FOS shall provide an authorized user the capability to request the generation of a table load.		0
	F-FUI-05125	passed	The FOS shall notify the requester when a table load has been successfully generated.		0
	F-FUI-05130	passed	The FOS shall display any errors encountered during the table load generation process.		0
	F-FUI-05700	passed	The FOS shall provide the capability for the user to select or input a load name for generating, scheduling, and deleting		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a load.		
	F-FUI-05705	passed	The FOS shall provide the capability for the user to input the data needed to build the load initiate command.		0
	F-FUI-05710	unverified	The FOS shall providce the capability to restrict load generation based on the user's group.	User's group is define as instrument team member or flight operations team member.	08700
	F-FUI-05720	passed	When deleting loads, the FOS shall request the user to provide additional confirmation of his intent to delete the load.		0
CMS-2060B					
	F-CMD-03320	passed	The FOS shall notify the user of load validation failures.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-01310	passed	The EOC shall validate the source, destination, and size of binary format instrument microprocessor load content generated externally to the FOS.	The valid source, destination, and size of each type of microprocessor load will be specified by the instrument teams. Load size validation will only be at a high level, to ensure the load is not larger than the microprocessor buffer.	0
	F-CMS-01320	passed	The EOC shall generate a microprocessor load from a microprocessor load content.	The requirements for microprocessor loads for specific spacecraft are discussed in the mission specific volume.	0
	F-CMS-01325	passed	The EOC shall generate and append to the microprocessor load all necessary load control commands.	Examples of load control commands may include: load initiate command, select table command, load commit command, and buffer switch	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				command. The number, type, and format of load control commands are discussed in the mission-specific volume.The load initiate command includes the CRC. The algorithm for the CRC is provided by the microprocessor instrument teams.	
	F-CMS-01330	passed	The EOC shall generate a microprocessor load report whenever a microprocessor load is generated.	All load reports generated will be made available to the IOT through use of the IST.	0
	F-CMS-01340	passed	The EOC shall include in the microprocessor load report: a. Load name b. Load type c. Valid uplink period e. Load size in bytes		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			f. Starting and ending memory location		
	F-CMS-01350	passed	The EOC shall maintain a catalog of microprocessor loads available in the EOC.	The microprocessor catalog is a list of microprocessor loads that are ready for uplink. The microprocessor catalog will be used when the scheduling of a microprocessor load uplink is requested via Planning & Scheduling.	0
	F-CMS-01360	passed	The EOC shall provide the capability to generate a Microprocessor Catalog Report listing load content name and valid uplink window associated with each microprocessor load available for uplink in the EOC.		0
	F-CMS-01420	passed	The EOC shall generate a flight software load from a flight software	The requirements for flight software loads for specific spacecraft are	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			load content.	discussed in the mission specific volume.	
	F-CMS-01425	passed	The EOC shall generate and append to the flight software load all necessary load control commands.	Examples of load control commands may include: load initiate command, select table command, load commit command, and buffer switch command. The number, type, and format of load control commands are discussed in the mission-specific volume.	0
	F-CMS-01430	passed	The EOC shall generate a flight software load report whenever a flight software load is generated.	All load reports generated will be made available to the IOT through use of the IST.	0
	F-CMS-01440	passed	The EOC shall include in the flight software load report:		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a. Load name b. Load type c. Valid uplink period e. Load size in bytes f. Starting and ending memory location		
	F-CMS-01450	passed	The EOC shall maintain a catalog of flight software loads available in the EOC.	The flight software catalog is a list of flight software loads that are available for uplink. The flight software catalog will be used when the scheduling of a flight software load uplink is requested via Planning & Scheduling.	0
	F-CMS-01460	passed	The EOC shall provide the capability to generate a Flight Software Catalog Report listing load content name and valid uplink window associated with each flight software load available for		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			uplink in the EOC.		
	F-CMS-11170	passed	The FOS shall use and maintain a standard set of AM1 load initiate mnemonics.		0
	F-CMS-11310	passed	The EOC shall provide the capability to format CERES, MISR, MODIS, and MOPITT instrument microprocessor load content into 1553B messages.		0
	F-CMS-11320	passed	The EOC shall provide the capability to calculate the CRC for a MISR, MODIS, or MOPITT instrument microprocessor load.	MODIS & MOPITT loads use the 16-bit CCITT CRC. MISR loads use the 16-bit CCSDS CRC.	0
	F-CMS-11330	passed	The EOC shall provide the capability to prepend the load initiate command, including the load descriptor, start	MODIS & MOPITT loads use the 16-bit CCITT CRC. MISR loads use the 16-bit CCSDS CRC. CERES CRCs are	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			address, word count, and CRC to a CERES, MISR, MODIS, or MOPITT instrument microprocessor load.	provided as part of the CERES load data; FOS does not calculate the CERES CRC.	
	F-CMS-11340	partially passed	The EOC shall format CERES, MISR, MODIS, and MOPITT microprocessor loads for uplink according to the CCSDS Telecommand packet protocols as specified in ICD-106.		07845,07846
	F-CMS-11420	passed	The EOC shall prepend a load initiate command to the flight software load.	The load initiate command includes the CRC, which is calculated by EOC software. GNC flight software loads use a 16-bit checksum in place of the CRC. All other AM1 flight software loads use the 16-bit CCSDS CRC.	0
	F-DMS-01405	passed	The FOS shall provide the capability to search the load catalog based on any	Load catalog fields include but are not limited to the load name, the load type,	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			of the load catalog fileds.	the valid uplink period, the schedule uplink times, the actual uplink time, and the spacecraft subsystem.	
	F-FUI-05600	passed	The FOS shall provide a user the capability to display catalog information for each load uplinked or generated during the last seven days, at a minimum. Note: Catalog information includes: a. load name b. load type c. valid load times d. load source e. load destination	Catalog information includes:_a. load name _b. load type _c. valid load times _d. load source _e. load destination	0
	F-FUI-05700	passed	The FOS shall provide the capability for the user to select or input a load name		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			for generating, scheduling, and deleting a load.		
	F-FUI-05705	passed	The FOS shall provide the capability for the user to input the data needed to build the load initiate command.		0
	F-FUI-05710	unverified	The FOS shall providce the capability to restrict load generation based on the user's group.	User's group is define as instrument team member or flight operations team member.	08700
	F-FUI-05720	passed	When deleting loads, the FOS shall request the user to provide additional confirmation of his intent to delete the load.		0
	F-FUI-05725	passed	The FOS shall provide the capability to ingest binary microprocessor and flight		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			software load contents.		
CMS-2090B					
	F-CMS-00110	passed	The EOC shall provide the capability to modify the expansion of an activity by applying parameter values supplied as part of an activity request.	Activity expansion instructions in the PDBwill include information on the applicability of parameter values.	0
	F-CMS-00115	partially passed	The EOC shall provide the capability to check the absolute time commands in the ATC load against command-level constraints	Command level constraints will be defined in the PDB.	08035
	F-CMS-00118	unverified	The EOC shall check the number of commands in the ATC load having the same time tag against the maximum allowable number.		08705
	F-CMS-00120	passed	The EOC shall provide notification of		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command-level constraint violations in ATC load contents.		
	F-CMS-00125	passed	The EOC shall provide the capability to allow "soft" command-level constraint violations to remain in the ATC load.	The PDB will specify "hard" constraints, which cannot be violated, and "soft" constraints, which can be allowed to remain in the ATC load.	0
	F-CMS-00130	passed	The EOC shall provide the capability to prohibit "hard" command-level constraint violations remaining in the ATC load.	The PDB will specify "hard" constraints, which cannot be violated, and "soft" constraints, which can be allowed to remain in the ATC load.	0
	F-CMS-00205	passed	The EOC shall provide the capability to generate an ATC load from a list of absolute time commands that covers the same operational period as the DAS.	The operational period (also called a target day) for a DAS will be specified by the planner/scheduler. The nominal operational period for a DAS is 24 hours. Appropriate boundaries for the	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				load will be determined so that the load will approximately cover the same operational period as the DAS.	
	F-CMS-00210	passed	The EOC shall convert the command portion of each absolute time command from mnemonic to binary form.	The EOC will convert commands to binary using the conversion instructions in the PDB.	0
	F-CMS-00215	passed	The EOC shall convert the time tag of each absolute time command to the applicable spacecraft compatible format.	The format of the time tags for specific spacecraft is discussed in the mission-specific volume.	0
	F-CMS-00220	passed	The EOC shall provide the capability to initiate generation of the ATC load which corresponds to a DAS upon request.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00230	passed	The EOC shall format the ATC load to conform to the ATC processing scheme on board the spacecraft.	The ATC processing scheme for specific spacecraft is described in the mission-specific volume.	0
	F-CMS-00240	passed	The EOC shall provide the capability to generate and append to the ATC load or partial load all necessary load control commands.	Examples of load control commands may include: load initiate command, select table command, load commit command, and buffer switch command. The number, type, and format of load control commands for specific spacecraft are discussed in the mission-specific volume.	0
	F-CMS-00243	failed	The EOC shall provide the capability to add a sequence of absolute time commands to the end of every ATC or ATC partial load.	The sequence of commands will be defined in the PDB. The function of the sequence would be to put the spacecraft and its instruments into a benign state.	08548

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00245	passed	The EOC shall have the capability to generate an ATC load report whenever an ATC or ATC partial load is generated.	All load reports generated will be made available to the IOT through use of the IST (See section 9.1.2.9.3).	0
	F-CMS-00640	passed	For each stored command that is scheduled to execute, the EOC shall provide a comment in the ground script which specifies the command and is time tagged with the same time as the stored command.		0
	F-CMS-10110	passed	The EOC shall generate absolute time commands which are consistent with the format specified in ICD-106.	The April, 1994 ICD-106 specifies that each absolute time command is of a fixed size of 24 octets, consisting of a time tag (3 octets), an inhibit identifier (1 octet), and command (20 octets).	0
	F-CMS-10120	passed	The EOC shall generate an ATC load in		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			which the time tags associated with absolute time commands have a resolution of one second.		
	F-CMS-10125	passed	The EOC shall generate absolute time commands with time tags in spacecraft compatible format.	For AM1, the time tag format shall conform to the format defined in ICD-106.	0
	F-CMS-10250	passed	The EOC shall prepend a load initiate command to the ATC load.	The load initiate command includes the CRC, which is calculated by EOC software. The AM1 ATC table ID is 11.	0
	F-CMS-10255	passed	The EOC shall format ATC loads for uplink according to the CCSDS Telecommand packet protocols as specified in ICD-106.		0
	F-CMS-10600	passed	The FOS shall allow a fixed minimum	This spacing is only applicable for the	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			spacing between a AM1 spacecraft or instrument load initiate command and the load data.	original load transmission. The time spacing is not preserved for automated COP-1 retransmissions.	
	F-CMS-11170	passed	The FOS shall use and maintain a standard set of AM1 load initiate mnemonics.		0
	F-DMS-01405	passed	The FOS shall provide the capability to search the load catalog based on any of the load catalog fileds.	Load catalog fields include but are not limited to the load name, the load type, the valid uplink period, the schedule uplink times, the actual uplink time, and the spacecraft subsystem.	0
	F-FUI-05700	passed	The FOS shall provide the capability for the user to select or input a load name for generating, scheduling, and deleting a load.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-05705	passed	The FOS shall provide the capability for the user to input the data needed to build the load initiate command.		0
	F-FUI-05710	unverified	The FOS shall providce the capability to restrict load generation based on the user's group.	User's group is define as instrument team member or flight operations team member.	08700
	F-FUI-05720	passed	When deleting loads, the FOS shall request the user to provide additional confirmation of his intent to delete the load.		0
CMS-2100B					
	F-CMS-00140	unverified	For each absolute time command generated, the EOC shall provide the capability to verify that the spacecraft memory resources needed by the	For example, if an absolute time command refers to an RTS (by RTS buffer number), the EOC will verify that, at the time the absolute time	08664

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command will be available on the spacecraft at the time the command executes.	command executes, the RTS buffer will contain the expected RTS load (as specified by load name in the activity request that resulted in the generation of the absolute time command.)	
	F-CMS-00250	partially passed	The EOC shall provide the capability to include in the ATC load report: a. the load name b. Load type c. Valid uplink period e. Load size in bytes f. Starting and ending ATC buffer locations g. Execution times of the first and last commands h. Number of commands i. Number of critical commands		08669

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			j. List of control commands k. A listing of all absolute time commands in the load, including for each command: 1. the command's memory location 2. execution time 3. command mnemonic 4. submnemonics and their values, if applicable 5. command bit pattern 6. criticality indicator		
	F-CMS-00425	passed	The EOC shall provide the capability to partition an ATC load at a user-requested boundary.	The EOC will notify the user if partitioning a load at a user-specified breakpoint would violate constraints defined in the PDB. Boundary is determined by user DAS selection - PAS.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00510	passed	The EOC shall maintain an ATC command-to-memory map consisting of the contents of each location in the ATC buffer.		0
	F-CMS-00530	passed	The EOC shall update the ATC command-to-memory map when the ATC load has been successfully uplinked.	The real-time command subsystem provides notification to CMS of successful load uplink.	0
	F-CMS-00550	passed	The FOS shall provide the capability to generate a Memory Map Report listing the memory location (offset in ATC buffer) and contents of each location in the ATC buffer.		0
	F-CMS-10130	passed	The FOS shall fill the trailing words of an AM1 ATC command with zeroes.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-10210	passed	The EOC shall generate a SCC stored command table load that maps all absolute time commands into the SCC stored command table in a manner that is consistent with the format and processing of the SCC stored command table as described in SD-110a.	The August, 1993 SD-110a indicates that absolute time commands should be mapped into the SCC stored command table in ascending time order, starting with the first available location and wrapping around to the first location in the table when the last location in the table has been filled.	0
	F-CMS-10220	partially passed	The EOC shall direct the placement of the ATC load such that the first command of the load is inserted into the SCC stored command table at the location immediately following the last meaningful command of the previous ATC load.	The ATC load will not overwrite commands in the SCC stored command table that have not executed and are still planned to be executed.	08665
	F-CMS-10410	passed	If the size of the ATC load is greater	The available space in the SCC stored	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			than the available space in the SCC stored command table, the EOC shall provide the capability to partition the load.	command table consists of the locations in the table between the first available location and the last available location. The first available location in the table is the location immediately following the last command of the previous load. The last available location in the table is the location immediately preceding the first command in the table which will not have been executed at the time the load is uplinked.	
	F-CMS-10420	passed	If the size of the ATC load is greater than 4K bytes, the EOC shall provide the capability to partition the load.		0
	F-FUI-05400	passed	The FOS shall provide a user the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			capability to display the command-to-memory map of an ATC		
	F-FUI-05405	passed	The FOS shall provide a user the capability to highlight the contents of the ATC buffer according to one or more of the following criteria: a. executed commands b. commands awaiting execution c. commands associated with a specified command inhibit group d. ATC pseudo-ops e. critical commands f. (reserved)g. empty areas (no-ops) h. commands associated with a specific instrument, and i. commands associated with a specific spacecraft subsystem.	ATC pseudo-ops include commands for the ATC processor (e.g., execute an RTS, jump to a specific location, no-ops, etc.).	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-05605	passed	The FOS shall provide a user the capability to generate a load uplink directive for a selected load.	The Planning and Scheduling and CMS subsystems generate the appropriate load uplink directives as part of the scheduling process. This scheduling procedure is available to any authorized user, not just the CAC. Load uplink directives will normally be placed into procedures to direct the uplink.	0
CMS-2170B					
	F-CMD-03320	passed	The FOS shall notify the user of load validation failures.		0
	F-CMS-00710	passed	The FOS shall provide the capability to specify the content of an RTS load.	RTS load contents will be specified using the RTS load builder.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00720	passed	The FOS shall provide the capability to specify the content of an RTS load based on the contents of a previously defined RTS load.		0
	F-CMS-00730	passed	The FOS shall provide the capability to validate RTS contents.	The FOS will validate RTS contents using the definition of the RTS buffer characteristics in the PDB.	0
	F-CMS-00735	passed	The FOS shall provide the capability to validate the mnemonics specified in an RTS load contents.		0
	F-CMS-00740	passed	The FOS shall provide the capability to check the relative time commands in the RTS load content against	Command-level constraints are defined in the PDB.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			command-level constraints.		
	F-CMS-00745	passed	The FOS shall provide notification of command-level constraint violations in RTS load contents.		0
	F-CMS-00750	unverified	The FOS shall provide the capability to allow "soft" command-level constraint violations to remain in the RTS load.	The PDB will specify "hard" constraints, which cannot be violated, and "soft" constraints, which can be allowed to remain in the RTS load.	08330
	F-CMS-00755	unverified	The FOS shall provide the capability to prohibit "hard" command-level constraint violations remaining in the RTS load.	The PDB will specify "hard" constraints, which cannot be violated, and "soft" constraints, which can be allowed to remain in the RTS load.	08330
	F-CMS-00810	passed	The EOC shall provide the capability to generate an RTS load from an RTS load content which has been validated.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00820	passed	The EOC shall provide the capability to convert the command portion of each relative time command from mnemonic to binary form.	The EOC will convert commands to binary using conversion instructions from the PDB.	0
	F-CMS-00830	passed	The EOC shall provide the capability to convert the time tag of each relative time command to a spacecraft compatible format.	The format of the time tags for specific spacecraft is discussed in the mission specific volume.	0
	F-CMS-00840	passed	The EOC shall provide the capability to generate and append to the RTS load all necessary load control commands.	Examples of load control commands may include: load initiate command, select table command, load commit command, and buffer switch command. The number, type, and format of load control commands for specific spacecraft are discussed in	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				the mission-specific volume.	
	F-CMS-00850	passed	The EOC shall generate an RTS load report whenever an RTS load is generated.	All load reports generated will be made available to the IOT through use of the IST.	0
	F-CMS-00860	passed	The EOC shall provide the capability to include in the RTS load report the following items, where applicable: a. Load name b. Load type c. Valid uplink period e. Load size in bytes f. RTS buffer number g. Starting and ending memory locations in the RTS table h. Number of commands i. Number of critical commands		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			j. A listing of all RTS commands in the load, including for each command in the load: 1. the command's memory location 2. offset time, if applicable 3. command mnemonic 4. submnemonics and their values, if applicable 5. command bit pattern 6. criticality indicator		
	F-CMS-10710	passed	The EOC shall generate SCC relative time commands which are consistent with the format specified in ICD-106.	Each RTS sequence consists of a total of 177 words. An AM1 RTS contains 16 slots. Each slot contains an 11-word command. Refer to ICD-106 for placement of Inhibit ID and command count. RTSs are in one table.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				The EOC shall create partial table loads for each RTS and determine where to place the RTS in this one table based on RTS number.	
	F-CMS-10720	passed	The EOC shall verify that the time tags associated with SCC relative time commands in an SCC RTCS load have a resolution of 1 second.		0
	F-CMS-10730	passed	The EOC shall format RTS loads for uplink according to the CCSDS Telecommand packet protocols as specified in ICD-106.		0
	F-CMS-10740	passed	The EOC shall prepend a load initiate command to the RTS load.	The load initiate command includes the CRC, which is calculated by EOC software. The RTS table ID is 12. The CRC is the 16-bit CCSDS CRC.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-11170	passed	The FOS shall use and maintain a standard set of AM1 load initiate mnemonics.		0
	F-DMS-01405	passed	The FOS shall provide the capability to search the load catalog based on any of the load catalog fileds.	Load catalog fields include but are not limited to the load name, the load type, the valid uplink period, the schedule uplink times, the actual uplink time, and the spacecraft subsystem.	0
	F-FUI-05200	unverified	The FOS shall allow an authorized user to enter RTS data that will be used to generate an RTS load.		08700
	F-FUI-05205	passed	The FOS shall provide an authorized user the capability to request the generation of an RTS load.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-05210	passed	The FOS shall display any validation errors detected in the RTS data.		0
	F-FUI-05215	passed	The FOS shall notify the requester when an RTS load has been successfully generated.		0
	F-FUI-05220	passed	The FOS shall display any errors encountered during the RTS load generation process.		0
	F-FUI-05700	passed	The FOS shall provide the capability for the user to select or input a load name for generating, scheduling, and deleting a load.		0
	F-FUI-05705	passed	The FOS shall provide the capability for		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			the user to input the data needed to build the load initiate command.		
	F-FUI-05710	unverified	The FOS shall providce the capability to restrict load generation based on the user's group.	User's group is define as instrument team member or flight operations team member.	08700
	F-FUI-05720	passed	When deleting loads, the FOS shall request the user to provide additional confirmation of his intent to delete the load.		0
CMS-2180B					
	F-CMS-00910	passed	The EOC shall maintain a catalog of RTS loads existing in the EOC.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00915	passed	The EOC shall provide the capability to generate an RTS Catalog Report listing load content name associated with each RTS load available for uplink in the EOC.		0
	F-CMS-00920	passed	The EOC shall provide the capability to include in the RTS Catalog Report the RTS buffer identifier for which the load is valid, the load content source, and the valid load uplink window.		0
	F-CMS-00925	partially passed	The EOC shall maintain an RTS map specifying the name of the RTS load content that is currently loaded into each RTS buffer.	The RTS map will be used to validate absolute time commands that initiate the execution of an RTS. The name of the load content being requested for execution must match the name of the load content in the map.	08632

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMS-00930	partially passed	The EOC shall provide the capability to generate an RTS Map Report listing the name of the load content that is currently loaded into each RTS buffer.		08576
	F-CMS-00935	passed	The EOC shall maintain an RTS command-to-memory map specifying the contents of each location in each RTS buffer.		0
	F-CMS-00940	passed	The EOC shall update the RTS command-to-memory map when the RTS load has been successfully uplinked.		0
	F-CMS-00950	passed	The FOS shall provide the capability to generate a Memory Map Report listing the memory location (offset within an RTS) and contents of each location in		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			an RTS buffer.		
	F-CMS-10725	passed	The FOS shall fill unused words of an AM1 RTS with zeroes.	Each AM1 RTS consists of 16 slots; unused slots are filled with zeroes.	0
	F-FUI-05500	passed	The FOS shall provide a user the capability to display the map of the RTS buffers.		0
	F-FUI-05505	partially passed	The FOS shall provide a user the capability to highlight the RTS buffers according to one or more of the following criteria: a. critical commands b. (reserved) c. commands associated with a specific instrument	RTS ownership is used to identify an RTS buffer with a specific instrument, subsystem, or function (e.g. FDIR).	08749

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			d. commands associated with a specific spacecraft subsystem e. RTS ownership f. undefined RTS		
	F-FUI-05510	passed	The FOS shall provide a user the capability to display RTS linkages.		0
	F-FUI-05515	passed	The FOS shall provide a user the capability to display the command-to-memory map of an RTS		0
	F-FUI-05600	passed	The FOS shall provide a user the capability to display catalog information for each load uplinked or generated during the last seven days, at a	Catalog information includes:_a. load name _b. load type _c. valid load times _d. load source _e. load destination	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			minimum. Note: Catalog information includes: a. load name b. load type c. valid load times d. load source e. load destination		
	F-FUI-05605	unverified	The FOS shall provide a user the capability to generate a load uplink directive for a selected load.	The Planning and Scheduling and CMS subsystems generate the appropriate load uplink directives as part of the scheduling process. This scheduling procedure is available to any authorized user, not just the CAC. Load uplink directives will normally be placed into procedures to direct the uplink.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-17265	passed	The FOS shall provide the capability to display the inhibit flags.		0
CMS-2190B					
	F-CMS-01210	passed	The EOC shall maintain a catalog of table loads existing in the EOC.		0
	F-CMS-01215	passed	The EOC shall provide the capability to generate a Table Catalog Report listing load content name and valid uplink window associated with each table load available for uplink in the EOC.		0
	F-CMS-01220	passed	The EOC shall maintain a table load map specifying the ownership of each table that is defined in the table data		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			base and the name of the table load content that is currently loaded into it.		
	F-CMS-01225	passed	The EOC shall provide the capability to generate a Table Map Report listing the name of the load content that is currently loaded into each table.		0
	F-CMS-11180	passed	The FOS shall load each element of a spacecraft or instrument table load in its entirety.	For example, if only 3 bits of a 16-bit word is used, the leading bits are zero-filled.	0
	F-FUI-05600	passed	The FOS shall provide a user the capability to display catalog information for each load uplinked or generated during the last seven days, at a minimum. Note: Catalog information includes:	Catalog information includes:_a. load name _b. load type _c. valid load times _d. load source _e. load destination	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a. load name b. load type c. valid load times d. load source e. load destination		
	F-FUI-05605	passed	The FOS shall provide a user the capability to generate a load uplink directive for a selected load.	The Planning and Scheduling and CMS subsystems generate the appropriate load uplink directives as part of the scheduling process. This scheduling procedure is available to any authorized user, not just the CAC. Load uplink directives will normally be placed into procedures to direct the uplink.	0
CONT-2010B					
	F-ANA-04200	passed	The FOS shall provide the capability to	The state of the subsystem or	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			determine the state of each of the S/C subsystems and instruments, based on values of valid telemetry parameters.	instrument refers to its mode. Examples of states would be on, off, charging, discharging, calibration mode, etc. Requirement implemented in the Decision Support Subsystem.	
	F-ANA-04210	passed	The FOS shall provide the capability to determine the status of each of the S/C subsystems and instruments, based on values of valid telemetry parameters.	The status of a subsystem or instrument refers to the overall health of the component. Examples of status's would be nominal and failed. Requirement implemented in the Decision Support Subsystem.	0
	F-ANA-04220	passed	The FOS shall provide the capability to determine the configuration of each of the S/C subsystems and instruments, based on values of valid telemetry parameters.	The configuration of a subsystem or instrument is the description of how the component is currently being utilized. Examples of configurations would be on-line and backup.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				Requirement implemented in the Decision Support Subsystem.	
	F-ANA-06030	passed	The FOS shall provide the capability for monitoring and evaluating spacecraft functions, resources, and performance including: a. stored command processing b. spacecraft recorders c. safe mode processes d. electrical power subsystem e. propulsion subsystem	The following FOS capabilities provide for the monitoring and evalution of the aforementioned (a-h): 1. state check covers a 2. SSR covers b 3. DSS covers c 4. Statistics processing covers d-h.	0
	F-ANA-09070	passed	The EOC shall provide the capability to define, for each EASE, a text description of the EASE.		0
	F-ANA-09080	passed	The FOS shall, when an EASE		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			evaluation result is TRUE, display the text description (if defined) of the EASE.		
	F-ANA-09090	passed	The EOC shall provide the capability to define, for each EASE, a text description of recommended procedures to follow when the EASE evaluation result is TRUE.	A text description is intended to describe the situation indicated by the EASE, as well as add any meaningful information required by the user.Example: The high gain antenna gimbal drive motor halted due to excessive temperature, greater than 70 celcius. This usually occurs when the spacecraft orients itself with the HGA assembly in line with the sun.	0
	F-ANA-09100	unverified	The EOC shall when an EASE evaluation result is TRUE, display the text description of the recommended procedures (if defined) associated		08701

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			with the EASE.		
	F-ANA-09110	unverified	The EOC shall provide the capability to associate a command request with an EASE.		08701
	F-ANA-09120	unverified	The EOC shall generate the associated command request (if defined) when an EASE evaluation result is TRUE.		08701
	F-ANA-09130	unverified	The EOC shall provide the capability to associate a real time procedure with an EASE.		08701
	F-ANA-09140	unverified	The EOC shall initiate the associated real time procedure (if defined) when an EASE evaluation result is TRUE.		08701

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-09150	passed	The EOC shall provide the capability to evaluate up to 50 EASEs during real time.		0
	F-ANA-09160	unverified	The EOC shall provide the capability to evaluate up to 50 EASEs during a replay.		08701
	F-ANA-09300	passed	The FOS shall provide the capability to determine the stability of the spacecraft safe hold mode by evaluating multiple spacecraft telemetry parameters.	Stability is determined to be "stable" or "unstable" based on the status of the electrical power subsystem and attitude control submode.	0
	F-ANA-09305	unverified	The FOS shall suspend the evaluation of spacecraft safe hold mode stability	NCC UPD and EDOS CODA parameters are used in this evaluation.	08660

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			if ground telemetry indicates that the spacecraft telemetry parameters may be suspect.		
	F-ANA-09310	passed	The FOS shall provide the capability to determine the configuration and stability of the spacecraft attitude control system when the spacecraft is in safe hold mode.	For AM1, FOS will determine the submode of the active ACE (earth pointing, inertial pointing, sun pointing).	0
	F-ANA-09315	passed	The FOS shall provide the capability to determine the stability of the spacecraft electrical power subsystem while the spacecraft is in safe hold.	The EPS stability is evaluated based on the stability of the solar arrays, batteries, and whether or not the spacecraft is in an anomalous power-negative state during	0
	F-FUI-09530	unverified	The FOS shall notify the operator of changes in spacecraft or ground telemetry states which pertain to the		08701

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			analysis of spacecraft safe hold mode stability.		
CONT-2020B					
	F-ANA-07400	passed	The EOC shall monitor housekeeping telemetry and provide notification of new spacecraft activity log messages.		0
	F-ANA-07420	passed	The EOC shall notify the user of the number of back orbit activity log messages after the dump data is processed.		0
	F-ANA-07430	passed	The EOC shall indicate the number of new critical activity log messages from the dumped back orbit data.	Critical activity log messages are defined in the database.	0
	F-ANA-07440	passed	The FOS shall provide the capability to		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			retreive archived AM1 activity log messages for analysis.		
	F-DMS-11030	passed	The FOS shall provide the capability to archive the AM1 activity log messages.		0
	F-FUI-17270	passed	The FOS shall provide the capability to display the spacecraft activity log.		0
	F-FUI-19550	passed	The FOS shall provide the capability to display the most recent 300 AM1 activity log messages.		0
	F-TLM-13000	partially passed	The FOS shall be capable of accepting and storing the downlinked AM1 spacecraft activity log table.	Activity log dumps are table ID 18.	08690

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
CONT-2030B					
	F-ANA-01060	passed	The FOS shall be able to access EDOS Customer Operations and Data Accounting (CODA) messages for analysis.		0
	F-ANA-06030	passed	The FOS shall provide the capability for monitoring and evaluating spacecraft functions, resources, and performance including: a. stored command processing b. spacecraft recorders c. safe mode processes d. electrical power subsystem e. propulsion subsystem	The following FOS capabilities provide for the monitoring and evalution of the aforementioned (a-h): 1. state check covers a 2. SSR covers b 3. DSS covers c 4. Statistics processing covers d-h.	0
	F-ANA-17010	passed	The FOS shall provide the capability to		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			monitor the AM-1 Solid State Recorder buffers in real-time.		
	F-ANA-17020	partially passed	The FOS shall provide the capability to detect RF failures which impact SSR playbacks.		08568
	F-ANA-17030	partially passed	The FOS shall provide the capability to report the state of the SSR playback at the time of an RF failure.		08568
	F-ANA-17040	passed	The FOS shall provide the capability to report the status of the SSR buffers at the end of a contact.	The report will be made available to Planning and Scheduling for planning subsequent contacts for SSR	0
	F-ANA-17050	unverified	The FOS shall provide the capability to recommend recovery procedures to		08568

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			correct for playback data loss.		
	F-ANA-17060	unverified	The FOS shall provide the capability to recommend recovery procedures to correct RF link faults.		08568
	F-FUI-14005	passed	The FOS shall provide notification when a user attempts to schedule science data collection activities that cause overflow of any of the SSR buffers.	Notification via timeline display.	0
	F-FUI-14010	unverified	The FOS shall provide the capability to display updated SSR buffer status after each unrecoverable data dropout or premature loss of contact.	SSR buffer status information is provided by FOS Analysis subsystem.	08568
	F-FUI-17800	passed	The FOS shall provide a SSR analysis		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			window that contains: a. buffer pointers b. buffer status c. playback state d. RF failures		
	F-FUI-17810	unverified	The FOS shall display recommended playback data loss recovery procedures.		08568
	F-FUI-17820	unverified	The FOS shall display recommended RF fault link correction procedures.		08568
	F-PAS-00600	failed	The FOS shall provide the capability for an authorized user to allocate the amount of the solid state recorder buffer available to specific users.		06360

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-PAS-00920	passed	The FOS shall model spacecraft data volume.		0
	F-PAS-10310	failed	The FOS shall provide the capability to change the AM-1 Solid State Recorder (SSR) buffer data volume limits.		06360
	F-PAS-10446	passed	The FOS shall provide the capability to predict the on-board SSR buffer status based on the science data collection activities scheduled by the users and the contact schedule to be negotiated with the NCC.		0
	F-PAS-10530	passed	The FOS shall provide the capability to change the buffer playback order of		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			instrument science data for the Solid State Recorder (SSR).		
CONT-2040B					
	F-CMS-01512	passed	The FOS shall be able to produce the planned state of the spacecraft for discrete telemetry parameters and the location of the stored command pointer upon request.	The set of discrete telemetry parameters that pertain to this requirement are limited to those discrete telemetry parameters used to perform telemetry verification as defined in the Command Project Data Base.	0
	F-TLM-01830	passed	The EOC shall provide the capability to format and store data as the parameters are being extracted from telemetry.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-02110	passed	The EOC shall compare expected values of specified parameters with the actual values received in the telemetry stream.		0
	F-TLM-02115	passed	The EOC shall perform spacecraft state checking only on good quality telemetry data.		0
	F-TLM-02120	passed	The EOC shall perform spacecraft state checks for discrete telemetry values that can be changed via spacecraft command and that can be verified through housekeeping telemetry.		0
	F-TLM-02125	passed	The EOC spacecraft state check shall reveal any deviations between the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			current state and expected state.		
	F-TLM-02130	passed	The EOC shall report the differences between the expected and actual spacecraft states.	Any differences will be reported as notification messages.	0
	F-TLM-02135	passed	The EOC shall provide the capability for the user to invoke spacecraft state checking.		0
	F-TLM-02140	passed	The EOC shall provide the capability to baseline the expected spacecraft state values with current downlink	The table of expected spacecrft parameter values can be over-written with the current spacecraft telemetry values. If necessary, the user is then permitted to invoke the spacecraft check several times during a contact.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
DBS-2000B					
	F-DMS-00110	passed	The EOC shall accept housekeeping and engineering telemetry definitions.		0
	F-DMS-00120	passed	The telemetry definitions shall contain the following information: a. telemetry packet processing definitions b. discrete telemetry definitions c. discrete state definitions - up to 16 ranges for each discrete parameter d. analog telemetry definitions e. red/yellow, delta limit definitions - up to four limit sets for each parameter may be defined f. linear engineering unit conversion definitions - up to four linear sets		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			specified with up to 15 point pairs for each analog parameter g. polynomial engineering unit conversion definitions - up to four polynomial sets with up to the 7th order equations for each analog parameter h. derived parameter definitions - up to five input parameters in an equation i. context dependent definitions - up to 16 ranges may be specified for each parameter j. subsystem/instrument definitions		
	F-DMS-00130	passed	The EOC shall accept spacecraft and instrument command definitions.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-00140	passed	The command definitions shall contain the following information: a. spacecraft command definitions b. instrument command definitions c. command criticality d. telemetry verification e. prerequisite state checking f. command conversion instructions g. memory mapping definitions h. table definitions i. stored command indicator		0
	F-DMS-00170	passed	The EOC shall accept spacecraft and instrument constraint definitions.		0
	F-DMS-00180	passed	The constraint definitions shall contain	Telemetry, command, activity and	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			the following information: a. spacecraft constraint definitions b. instrument constraint definitions c. operational mode transition definitions d. command timing and sequencing constraints	constraint definitions are governed by the formats specified in the FOS PDB Data Format Control Document (DFCD).Command timing and sequencing constraints are performed at the subsystem/instrument level and at the command level. PAS assumes responsibility for s/c and instrument activity level temporal constraints and operational mode transition definitions. DMS remains responsible for all command level constraints.	
	F-DMS-00270	unverified	The EOC PDB log shall include the following information: a. Time stamp b. PDB version number	Last update refers to the last time the user made changes to the current version of the PDB.	07953

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			c. File name d. User ID e. Changes made to the PDB since the last update		
	F-DMS-00310	passed	The EOC shall provide the capability to perform validation on the telemetry definitions maintained in the PDB.		0
	F-DMS-00320	passed	The EOC shall provide the capability to perform validation on the command definitions maintained in the PDB.		0
	F-DMS-00340	passed	The EOC shall provide the capability to perform validation on the constraint definitions maintained in the PDB.	PAS assumes responsibility for activity level constraint definitions.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-00350	passed	The EOC shall provide the capability to generate a validation report which contains summary and error information.		0
	F-DMS-00360	partially passed	The EOC shall provide the capability to perform validation on modifications to the PDB definitions.		08591
	F-DMS-00610	passed	The EOC shall provide for operational use of the telemetry PDB definitions.		0
	F-DMS-00620	passed	The EOC shall provide for operational use of the command PDB definitions.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-00630	passed	The EOC shall provide for operational use of the activity PDB definitions.		0
	F-DMS-00640	passed	The EOC shall provide for operational use of the constraint PDB definitions.		0
	F-DMS-00650	passed	The operational data shall contain a version number and date of generation.		0
	F-DMS-01310	passed	The EOC shall provide the capability to input ground telemetry definitions.	Ground telemetry consists of EDOS, NCC and user defined definitions. This requirement allows for status information to be displayed for EDOS, NCC, and user defined ground telemetry. Examples of user defined ground telemetry are number of	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				workstations, prime and backup information, and string information.	
	F-DMS-01320	passed	The EOC shall provide the capability to validate ground telemetry definitions.	Ground telemetry consists of EDOS, NCC and user defined definitions.	0
	F-DMS-01330	passed	The EOC shall provide for operational use of validated ground telemetry definitions.	Ground telemetry consists of EDOS, NCC and user defined definitions.	0
DBS-2010B					
	F-DMS-00510	passed	The EOC shall maintain all versions of the operational PDB.	The operational PDB refers to the PDBdefinitions which have been validated and refarded as acceptable for operational use.	0
	F-DMS-00520	passed	The EOC shall maintain the following		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			information for each version of the PDB: a. PDB version number b. effective date		
	F-DMS-00530	passed	The EOC shall provide the capability to backup the operational PDB.		0
	F-DMS-00540	passed	The EOC shall provide the capability to restore the operational PDB.		0
	F-DMS-00550	passed	The EOC shall provide the capability to compare two versions of the validated PDB.		0

DBS-2020B

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-00410	passed	The FOS shall provide for authorized users the capability to report information maintained in the PDB.		0
	F-DMS-00420	partially passed	The FOS shall provide the capability to access PDB information for reporting purposes by the following: a. PDB type (telemetry, command, activity, constraint) b. mnemonic		07598
DBS-2030B					
	F-DMS-00205	passed	The EOC shall provide authorized users the capability to add telemetry definitions to the PDB.	Authorized users are those persons given data base privileges such as the data base administrator.	0
	F-DMS-00210	passed	The EOC shall provide authorized users the capability to delete telemetry		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			definitions maintained in the PDB.		
	F-DMS-00215	passed	The EOC shall provide authorized users the capability to modify telemetry definitions maintained in the PDB.		0
	F-DMS-00220	passed	The EOC shall provide authorized users the capability to add command definitions to the PDB.		0
	F-DMS-00225	passed	The EOC shall provide authorized users the capability to delete command definitions maintained in the PDB.		0
	F-DMS-00230	passed	The EOC shall provide authorized users the capability to modify command		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			definitions maintained in the PDB.		
	F-DMS-00231	passed	The EOC shall provide authorized users the capability to add binary patterns to the hazardous command definitions maintained in the PDB.		0
	F-DMS-00232	failed	The EOC shall provide authorized users the capability to modify binary patterns to the hazardous command definitions maintained in the PDB.		08299
	F-DMS-00233	passed	The EOC shall provide authorized users the capability to delete binary patterns to the hazardous command definitions maintained in the PDB.		0
	F-DMS-00250	passed	The EOC shall provide authorized	PAS assumes responsibility for activity	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			users the capability to add constraint definitions to the PDB.	level constraint definitions.	
	F-DMS-00255	passed	The EOC shall provide authorized users the capability to delete constraint definitions maintained in the PDB.	PAS assumes responsibility for activity level constraint definitions.	0
	F-DMS-00260	passed	The EOC shall provide authorized users the capability to modify constraint definitions maintained in the PDB.	PAS assumes responsibility for activity level constraint definitions.	0
	F-DMS-00265	failed	The EOC shall provide a PDB edit log presenting edits made to the PDB.		07953
EDOS-2000B					
	F-FOS-00020	passed	The EOC shall use and support the		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			EDOS/EBnet interface to obtain the data formatting services, data distribution services, and data quality and accounting services needed to achieve full FOS functionality.		
	F-TLM-02215	partially passed	The EOC shall be capable of receiving and processing EDOS real-time Customer Operations Data Accounting (CODA) service reports periodically during a spacecraft contact session.		08625
	F-TLM-02250	passed	The EOC shall be capable of storing non-telemetry messages as they are being received.		0
EDOS-2001B					
	F-ANA-03012	unverified	The FOS shall be able to perform		08784

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			analysis on all NCC and EDOS parameters contained within the stored NCC/EDOS data received during real time.		
	F-ANA-04035	unverified	The FOS shall provide the capability to generate datasets from stored NCC and EDOS data received in real time.		08784
	F-ANA-07010	unverified	The FOS shall provide the capability to perform MMM statistics on EDOS and NCC data received during real time.		08784
	F-ANA-07020	unverified	The interval for NCC/EDOS statistics shall be equal to the duration of the real time pass during which the statistics are performed.		08784

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-07030	unverified	The FOS shall provide the capability to process a request for EDOS/NCC statistics for any time span greater than one second and less than three (3) months.	The statistical data generated by the FOS shall not be available until after the real time pass during which it was generated.	08784
	F-FUI-02300	unverified	The FOS shall provide the user the capability to select a time range for the replay data to play, including: a. start time b. stop time c. begin time	Replay data includes telemetry, NCC UPD Messages, and EDOS CODA Reports.	08784
	F-FUI-02305	unverified	The FOS shall provide the user the capability to select the replay rate.		08784
	F-FUI-02310	unverified	The FOS shall provide the means of stepping forward through the replay	Replay data includes telemetry, NCC UPD Messages, and EDOS CODA	08784

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			data by specifying the amount of time in seconds.	Reports.	
	F-FUI-02315	unverified	The FOS shall allow the user to pause the replay data sequence.	Replay data includes telemetry, NCC UPD Messages, and EDOS CODA Reports.	08784
	F-FUI-02320	unverified	The FOS shall allow the user to resume the paused replay data sequence.	Replay data includes telemetry, NCC UPD Messages, and EDOS CODA Reports.	08784
	F-FUI-02325	unverified	The FOS shall provide the user the capability to reset the begin time when the replay is in pause mode.		08784
	F-FUI-02330	unverified	The FOS shall provide a visual indication of the location of the replay		08784

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			data. This display will include: a. start time b. stop time c. position of current time		
	F-FUI-02335	unverified	The FOS shall provide the user a reset capability that will reset the replay time to the last established begin time.		08784
	F-RMS-05050	unverified	The EOC shall provide the capability to replay stored EDOS CODA Reports based upon a user specified time period.		08784
	F-RMS-05060	unverified	The EOC shall process all EDOS CODA Reports for the requested period, during the replay operation.		08784

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-RMS-05070	unverified	The EOC shall be capable of processing stored EDOS CODA Reports for analysis at twelve (12) times the real-time rate.	This requirement is derived from the fact that the FOS must be able to analyze twenty-four (24) hours of stored telemetry data within a two (2) hour period. This capability is used for off-line batch processing and when immediate display of information is not necessary or desired (i.e., gathering statistics on a particular parameter over several weeks of stored ground telemetry data.)	08784
	F-RMS-05080	unverified	The EOC shall be able to process EDOS CODA Reports at the real-time rate or at a user specified rate up to three (3) times the real-time rate.		08784

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-01185	failed	The FOS shall have the capability to send Command Test Blocks to EDOS.		08360
	F-CMD-06100	failed	The FOS shall have the capability to receive a Command Echo Block from EDOS.		08360
	F-CMD-06110	passed	The FOS shall alert the operator if a Command Echo Block is not received from EDOS within a pre-defined time interval after transmission of a Command Test Block to EDOS.		0
	F-CMD-06120	passed	The FOS shall allow the operator to reconfigure the timeout value for receipt of Command Echo Blocks from EDOS.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
EDOS-2010B					
	F-ANA-04510	unverified	The FOS shall provide the capability to generate a spacecraft contact session summary report based on data received from EDOS.	The report is generated when a Spacecraft Contact Session (SCS) Summary Report is received from EDOS and is converted to ASCII format.	08775
	F-ANA-04520	unverified	The FOS shall generate a spacecraft contact session summary report automatically whenever a Spacecraft Contact Session (SCS) Summary Report is received.	FOS converts the EDOS binary data to an operator-readable report.	08775
	F-ANA-04530	unverified	The FOS shall provide the capability to generate a Spacecraft Contact Session (SCS) Summary Report upon user request.		08775

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-01021	unverified	The EOC shall be capable of retrieving the following data files from the FOS archive. a. View period information for backup Ground Stations. b. (deleted) c. Spacecraft Contact Session (SCS) Summary Report.		08775
	F-DMS-01420	unverified	The EOC shall provide the capability to receive a Spacecraft Contact Session (SCS) Summary Report from EDOS.		08775
	F-TLM-02210	unverified	The EOC shall be capable of receiving and processing EDOS Spacecraft Contact Session (SCS) summary reports following the completion of the spacecraft contact session.		08775

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
EDOS-2030B					
	F-DMS-10710	failed	The EOC shall archive trash buffer data received from EDOS.		08473, 08657
	F-DMS-10720	partially passed	The EOC shall produce an event message stating that it has received trash buffer data from EDOS.		08255
	F-DMS-11010	passed	The EOC shall be capable of providing a listing of the trash buffer data files received from EDOS.		0
	F-FUI-11200	passed	The FOS shall allow a user to transfer AM-1 Solid State Recorder (SSR) trash buffer files to the Software		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Development and Validation Facility (SDVF).		
ETE-2000B					
	F-CMD-04110	partially passed	The EOC shall process and output to EBnet a single real-time emergency command request within 500 milliseconds of receiving the request from an EOC operator.		08119
	F-FOS-00200	partially passed	The ECS shall contribute a loop delay of not greater than 2.5 seconds of the total system delay of six (6) seconds for emergency real-time commands, not including the time needed for command execution.	The loop delay is measured from the EOC to the spacecraft and back to the EOC. The loop delay requirement only applies when a TDRSS link is available for contact to the spacecraft. CSMS is providing the communication and networking services which are part of the 2.5 second portion that ECS	08119

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
				contributes to the total round-trip delay.	
	F-FOS-00305	unverified	The EOC shall interface with the EOS spacecraft and with the EOS instruments in order to perform mission operations, including planning, scheduling, commanding, and monitoring functions.		08560
	F-FOS-10200	unverified	The EOC shall utilize no more than 50 percent of each of its primary resources such as central processing units (CPUs), disk storage devices, and network communications capacities during any 20-minute period of AM-1 operational load conditions.		08786

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FOS-10205	unverified	The EOC shall utilize no more than 50 percent of its primary resources during any 20-minute period of peak load AM-1 operational conditions.	The purpose of this requirement is to ensure an installed capacity adequate to support peak load oeprations for AM-1, which include launch and emergencies (i.e., anomaly investigations). The intent of the 50% resource utilization is to support the addition and enhancement of fucntions found to be necessary after segment acceptance.	08786
	F-TLM-00535	failed	The FOS shall be capable of continuously decommutating real-time spacecraft housekeeping telemetry at rates up to 50 Kbps per spacecraft.		08706
	F-TLM-00540	failed	The FOS shall be capable of continuously decommutating real-time instrument housekeeping telemetry at rates up to 50 Kbps per spacecraft.		08706

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-01515	failed	The EOC shall be capable of receiving and storing real-time housekeeping telemetry at rates up to 50 Kbps for each EOC controlled spacecraft.		08706
ETE-2050B					
	F-FOS-00260	partially passed	The FOS shall ensure that the following calendar transitions are handled completely and accurately for each of its subsystem's functionality: a. New Year b. New Decade c. New Century d. Leap Year.		08790
ETE-2010B					

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-CMD-01120	passed	The EOC shall be capable of transmitting commands to the EOS spacecraft via EDOS using the SN (Space Network).		0
	F-CMD-01125	passed	The EOC shall be capable of transmitting commands to the EOS spacecraft via EDOS using the S-band Contingency Ground Stations in contingency or emergency operations.		0
	F-CMD-01160	passed	The EOC shall be capable of transmitting commands to EDOS via EBnet.		0
	F-CMD-01250	passed	The EOC shall implement command spacing (metering) to maintain the required real time uplink rate.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FOS-00010	passed	The EOC shall use and support the Space Network (SN), via the EDOS/EBnet interface, to obtain the forward and return link data communications needed to achieve full FOS functionality.		0
	F-FOS-00015	passed	The EOC shall use and support the S-band contingency ground stations, via the EDOS/Ebnet/Nascom interface, as backup of the SN, to obtain forward and return link data communications.		0
	F-FOS-00020	passed	The EOC shall use and support the EDOS/EBnet interface to obtain the data formatting services, data distribution services, and data quality		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			and accounting services needed to achieve full FOS functionality.		
	F-FOS-00025	passed	The EOC shall use EBnet for flight operations data transfers.		0
	F-FOS-00320	passed	The EOC shall use Ebnet for data communications for the following types of data: a. Real-time telemetry data, rate-buffered telemetry data b. Command data c. TDRSS schedule requests and TDRSS schedules d. Data exchange with the FDF, NCC and EDOS	Reference the Interface Control Document between the EOC and Ebnet for specifics pertaining to this interface.	0
	F-FUI-01185	passed	The FOS shall provide the capability to	Rooms will not interfere with the host	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			indicate the string indentifier(s) for windows displaying real-time, playback, simulated, event history and multiple source data for all users.	computer's window manager. rooms will not interfere with other processes running on the host computer.	
EVT-2000B					
	F-DMS-01210	passed	The FOS shall provide the capability to generate event messages.		0
	F-DMS-01270	unverified	The FOS shall provide the capability to generate events upon receipt of hardware component status change information from the MSS.		07606
	F-DMS-01280	unverified	The FOS shall provide the capability to generate events upon receipt of permanent and temporary software		07606

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			component status change information from the MSS.		
	F-DMS-01290	passed	The FOS shall provide the capability to generate either local or global events.	Local events are display only for the user (IST or USER Station) that's involved in a "dedicated service " (e.g., dedicated relay or other standalone operations); Global events are multicast to all ISTs and User Stations.	0
	F-FOS-00250	passed	The FOS shall provide that the time lag between the production of an event message and its display does not exceed 1.0 second.	This requirement is applicable during nominal operations -- i.e., it does not pertain to situations where a burst of limit violation messages are produced.	0
	F-FOS-00255	passed	The FOS shall provide a time accuracy for time tagging of event messages within 1 second of their occurrence.	The test for this requirement will be by design inspection.	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-01320	passed	The FOS shall provide an area that displays the three most recent event messages sent to the user.		0
	F-FUI-09610	passed	The event display shall have a scrolling text field that displays the current event messages.		0
	F-FUI-09615	passed	The event display shall contain a graphical timeline that displays one indicator per event.		0
	F-FUI-09620	passed	The graphical timeline event indicators shall be color coded per event type.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09625	passed	As a user scrolls through the event text, the graphical timeline shall display a time correlated visual indicator.		0
	F-FUI-09630	passed	As a user selects an event in the graphical timeline, the event text shall scroll to the corresponding event.		0
	F-FUI-09635	passed	The FOS shall allow the user to search for event messages that contain specific textual content.		0
	F-FUI-09645	passed	The FOS shall visually alert a user that an event has occurred.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-09663	passed	The FOS shall provide the capability to configure an events display as either a local events display or a global events display.		0
	F-FUI-09665	passed	The FOS shall provide the capability for a user to display both a local events display and a global events display.		0
EVT-2010B					
	F-DMS-01220	passed	The FOS event messages shall include the following: a. UTC time tag b. Event type c. Event Identifier d. Event message e. Spacecraft Identifier (if applicable) f. Instrument Identifier (if applicable)		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-01230	partially passed	The FOS shall provide the capability to filter event messages by: a. UTC time tag b. Event type c. Event Identifier d. Spacecraft Identifier (if applicable) e. Instrument Identifier (if applicable)		07843
	F-FOS-00240	passed	The EOC shall provide time resolution of 10 milliseconds for the internal EOC computer clocks.	The time source is driven by an external source --i.e., NASA-36 time.	0
	F-FOS-00245	passed	The EOC shall provide time accuracy of 500 milliseconds.	The time accuracy pertains to the accuracy of the computer clocks in the EOC network with respect to one another and the time source.	0
	F-FOS-00250	passed	The FOS shall provide that the time lag	This requirement is applicable during	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			between the production of an event message and its display does not exceed 1.0 second.	nominal operations -- i.e., it does not pertain to situations where a burst of limit violation messages are produced.	
	F-FUI-01325	passed	The FOS shall enable the user to filter event messages according to the type of event.		0
	F-FUI-03200	passed	The FOS shall provide a utility that allows a user to filter items according to any of the following: a. spacecraft b. spacecraft subsystem c. instrument d. ground system		0
	F-FUI-03205	passed	The FOS shall allow the user to specify one or more spacecraft Ids as a filter criteria.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-03210	passed	The FOS shall allow the user to specify one or more spacecraft subsystems as a filter criteria.		0
	F-FUI-03215	passed	The FOS shall allow the user to specify one or more instruments as a filter criteria.		0
	F-FUI-03220	passed	The FOS shall allow the user to specify one or more ground systems as a filter criteria.		0
	F-FUI-03225	passed	The FOS shall allow the user to specify one or more subsystems associated with a spacecraft Id as a filter criteria.		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-03230	passed	The FOS shall allow the user to specify one or more instruments associated with a spacecraft Id as a filter criteria.		0
EVT-2020B					
	F-DMS-00910	passed	The EOC shall archive all event messages.	Duplicated events will not be archived (i.e. telemetry limit events from multiple workstations).	0
	F-DMS-00920	passed	The EOC shall maintain events data on-line for a minimum of 7 days.		0
	F-DMS-00930	partially passed	The FOS shall provide the capability to retrieve archived events by specifying		07843

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			the following: a. UTC start time b. UTC stop time c. Event type(s) d. Event identifier e. Spacecraft Identifier (if applicable) f. Instrument Identifier (if applicable)		
	F-DMS-00940	passed	The EOC shall retrieve event messages in chronological order.		0
	F-DMS-01240	unverified	The EOC shall provide the capability to initiate a procedure based on an event.	Only selected events will have this capability.	07843
	F-FUI-02115	passed	The FOS shall provide the following message types:		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			a. fatal b. warning c. information d.alarm.		
	F-FUI-09605	partially passed	The FOS shall provide a filter capability for the real-time event and event history displays that allows events to be included, excluded, or highlighted according to: a. spacecraft Id b. ground system c. instrument d. spacecraft subsystem e. event message type f. time period	Valid event message types are delineated in the archive requirement's section 9.2.2.	07843
	F-FUI-09640	passed	The FOS shall provide the results of an		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			event history request in the event history display.		
	F-FUI-09700	passed	The FOS shall provide the user with the capability to request event history data.		0
	F-FUI-09705	partially passed	The event history request shall include filtering of events by: a. time period b. spacecraft Id c. instrument d. spacecraft subsystem e. event message type		07843
	F-FUI-09710	passed	The FOS shall provide the user with the capability to store the results of the event history request for future		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			analysis.		
EVT-2030B					
	F-DMS-01250	unverified	The FOS shall provide the capability to designate a type of event message as an alarm.	This requirement is for local events.	08760
	F-DMS-01260	unverified	The FOS shall provide the capability to designate a type of event message as not an alarm.	The alarm characteristic of an event is removed.This requirement is for local events.	08760
	F-FUI-09650	failed	The FOS shall allow the user to activate and deactivate the generation of auditory alarms associated with the occurrence of events.		08291
	F-FUI-09655	failed	The FOS shall require that an operator acknowledge each event that is	If the generation of auditory alarms has been deactivated by the operator, then	07766

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			defined as an alarm event.	the operator does not need to acknowledge the alarm event.	
	F-FUI-09660	passed	The FOS shall allow the operator to locally disable the acknowledgement of alarms functions.		0
FDF-2000B					
	F-ANA-01040	partially passed	The FOS shall be able to access FDF supplied data for analysis.		08762
	F-ANA-04030	failed	The FOS shall be able to generate datasets from the following FDF data: a. Star Density profile b. Star Interference c. Earth Sensor Assembly (ESA)		08400

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Sun/Moon Interference d. Fine Sun Sensor (FSS) Visibility Prediction e. TDRSS State Vectors f. TDRSS Availability Times g. Filter Tuning Parameters h. Omni to TDRSS Viewing Times i. HGA to TDRSS Viewing Times j. Omni to Ground Station Viewing Times k. HGA Gimbal Angles l. Predicted Ephemeris m. Mass and Center of Mass Location Estimates n. Oscillator Frequency data o. EOS Brouwer-Lyddane Elements		
	F-ANA-05160	failed	The FOS shall generate and store		08400

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			statistics for the following FDF supplied data: a. EOS Brouwer-Lyddane Elements b. Oscillator Frequency Report c. Mass and Center of Mass Location Estimates		
	F-ANA-05170	unverified	The FOS shall compute the following statistics for the FDF supplied data: a. Minimum value b. Time for the minimum value c. Maximum value d. Time for the maximum value e. Mean f. Standard Deviation g. Number of samples		08400
	F-ANA-05180	passed	The FOS shall compute statistics for the FDF data upon receipt of the data.		0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-ANA-05190	unverified	The FOS shall compute statistics for the FDF data for the mission to-date.		08400
	F-CMS-01028	passed	The FOS shall provide the capability to accept a Table load content imported from the Software Development and Validation Facility (SDVF).		0
	F-CMS-01029	passed	The EOC shall validate the source and destination of table load content generated externally to the FOS.		0
	F-CMS-01140	passed	The EOC shall provide the capability to generate table loads from data received from FDF.	The tables to be generated from FDF data are specified in the FDF/EOC ICD.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-DMS-01450	partially passed	The FOS shall ingest and validate all FDF products listed: a. Sensor Calibration Table b. EOS AM-1 Mission Star Catalog c. Star Density Profile d. SSST Star Interference e. ESA Sun/Moon Interference f. FSS Visibility Predict g. TDRS State Vectors h. EOS AM-1 Brouwer-Lyddane Elements i. TDRS Brouwer-Lyddane Elements j. Simulated EOS-AM-1 Spacecraft Ephemeris k. Filter Tuning Parameters l. OMNI-to-TDRSS Viewing Times m. HGA-to-TDRSS Viewing Times	TBD/TBR items in the FDD/ECS ICD are not validated.	08762

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			n. OMNI-to-Ground Station Viewing Times o. HGA Gimbal Angles p. Predicted EOS-AM1 Ephemeris q. Predicted TDRS Ephemeris r. Orbit Adjust Maneuver Request s. Delta-V Parameters Table t. Mass and Center of Mass Location Estimates. u. Predicted EOS-AM1 Ranging Data.		
	F-DMS-01451	partially passed	The FOS shall ingest and validate all FDF products listed: a. Attitude Predictions b. Predicted Orbital Events c. Planned Orbit Maneuver Dataset d. Solar/Lunar Azimuth and Elevation	TBD/TBR items in the FDD/ECS ICD are 08762 not validated.	

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			Angles		
			e. Solar Beta Angles		
			f. Predicted Local Sun Time		
			g. Lunar Beta Angles		
			h. MODIS/MISR Sun and Moon FOV		
			Events		
			i. MODIS/MISR Planets and Stars FOV		
			Events		
			j. Predicted Sub-Satellite Point Dataset		
			k. Predicted Spacecraft Altitude		
			l. Predicted Spacecraft Day/Night		
			Length		
			m. AM-1 State Error Covariance Matrix		
			n. Simulated Doppler Data		
			o. Ku-Band Oscillator Frequency		
			Report		

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			p. X-Band Interference Times q. Apogee/Perigee Altitude File r. Predicted Orbit Number and Start Times Dataset s. UTC to UT1 Timing t. Predicted Instrument Orbit Events		
	F-DMS-01452	partially passed	The FOS shall ingest and validate all FDF products listed: a. Simulated TDRS State Vectors b. Simulated EOS AM-1 Brouwer-Lyddane Elements c. Simulated TDRS Brouwer-Lyddane Elements d. Simulated EOS AM-1 State Vectors e. Ground Station Contact Times f. MODIS FOV Target View Period	TBD/TBR items in the FDD/ECS ICD are 08762 not validated.	

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			g. Earth Gravity Model Spherical Harmonic Coefficients		
			h. Earth Gravity Model Degree Variance		
			i. Harris-Priester Atm. Density Model		
			j. Solar Ephem Modification Data		
			k. EOS AM-1 Modeling Data		
			l. TDRS Modeling Data		
			m. Ground Antenna Modeling Data		
			n. State Tolerance Data		
			o. Doppler Measurement Tolerance Data		
			p. Covariance Tolerance Data		
			q. Navigation Time Step Data		
			r. Physical and Mathematical Constants Data		
			s. Master Oscillator Frequency Bias Data		

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			t. Atmospheric Drag Data u. TDRSS Measurement Bias Data.		
	F-DMS-01455	partially passed	The EOC will provide validation of the definitions maintained in the ECS/FDF ICD. The Following validation checks shall be performed on FDF Products: a. Validate mission name b. Validate date (of the data) c. Staleness of the date (must be today's date or a date in the future) d. Validate sequence number, if applicable e. Validate parameters range of values f. (deleted) g. Validate the orbit events alternate in the Planning aids file.	TBD/TBR items in the FDD/ECS ICD are not validated.	08762

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			h. Validate certain thruster firings occur in pairs (used for AM-1) i. Validate times within the data records are within the valid range j. Validate that records size < a specific value k. Verify that record size = a specific value.		
	F-DMS-01485	failed	The FOS shall send predicted orbit data and planning aids from the FDF to the ASTER ICC as specified in the ASTER ICC ICD.		08755
	F-DMS-01490	failed	The FOS shall provide predicted orbital information to the ASTER ICC.		08755

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FOS-00320	passed	The EOC shall use Ebnet for data communications for the following types of data: a. Real-time telemetry data, rate-buffered telemetry data b. Command data c. TDRSS schedule requests and TDRSS schedules d. Data exchange with the FDF, NCC and EDOS	Reference the Interface Control Document between the EOC and Ebnet for specifics pertaining to this interface.	0
	F-FOS-00325	passed	The EOC shall receive EOS planning aids from the FDF.	Reference the Interface Control Document between the EOC and FDF for specifics pertaining to this	0
	F-FOS-00330	passed	The EOC shall provide the FDF with subsets of spacecraft housekeeping data.	Reference the Interface Control Document between the EOC and FDF for specifics pertaining to this	0

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-PAS-00137	passed	The FOS shall accept predicted orbit data and planning aids for EOS spacecraft from the FDF.	DMS has reponsibility for this requirement.	0
	F-PAS-00138	passed	The FOS shall make predicted orbit data and planning aids for a specific spacecraft available to authorized users.	DMS has responsibility for this requirement.	0
	F-PAS-00145	passed	The FOS shall provide the capability for an authorized user to receive updated spacecraft orbit data from the FDF.	DMS has responsibility for this requirement.	0
	F-PAS-10449	passed	The EOC shall provide the capability to receive AM-1 Backup Ground Station view periods from the FDF.	DMS has responsibility for this requirement.	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-TLM-01825	passed	The EOC shall provide the capability to decommutate and provide data to the FDF as the parameters are being extracted from telemetry.		0
	F-TLM-01830	passed	The EOC shall provide the capability to format and store data as the parameters are being extracted from telemetry.		0
FUI-2000B					
	F-FUI-01305	passed	The FOS shall contain a command line area that allows the user to issue directives from a workstation	Detailed requirements for the directives are discussed in section 9.1.1.5.	0
	F-FUI-01310	failed	The FOS shall provide a command line editing capability that allows the retrieval and display of the 20 most recent input lines for modification and		08791

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			resubmission.		
	F-FUI-01315	passed	The FOS shall allow the user access to the following capabilities: a. user specified rooms b. a list of available rooms c. a list of available windows d. additional tools (i.e., environment setup) e. procedures		0
	F-FUI-01330	passed	The FOS shall allow the user to initiate functions from a control window using a pointing device.		0
	F-FUI-01335	passed	The FOS shall allow the user to perform typical windowing desktop control with the pointing device,	The FOS intends on providing an "undo" capability where applicable. Item c.: Window resizing capability is	0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			including: a. window focus selection b. window movement c. window resizing d. window closing e. window iconifying	provided for most windows. Window resizing will only be applicable in cases where the resize does not interfere with the functionality provided by the window. Some tools provided by FOS contain complex widgets that cannot be resized without impairing the functionality provided by these tools.	
	F-FUI-01340	failed	The FOS shall allow the user to initiate functions using function keys.		08794
FUI-2020B					
	F-FUI-01200	failed	The FOS shall provide the capability to specify the default printer.		08470

FOS Requirement Status Matrix

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-01205	failed	The FOS shall provide the capability to specify the default data directories within the system.		08489
	F-FUI-01215	failed	The FOS shall provide the capability to specify the default color intensities for the real-time windows.		08490
	F-FUI-01220	partially passed	The FOS shall provide the capability to specify the default colors for non real-time windows.	The selection of colors will be from a predefined palette as defined in the ECS User Interface Style Guide.	08492
	F-FUI-01225	partially passed	The FOS shall provide the capability to select the default font styles to be used from a predefined selection.		08492

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
	F-FUI-01230	failed	The FOS shall provide the capability to modify the quick access room selections in the control window.		08491
	F-FUI-01235	passed	The FOS shall, upon user login, load the following default settings: a. default printer b. default data directories c. (deleted) d. default real-time color intensities e. default window colors f. default font styles g. default room selections		0
	F-FUI-01600	passed	The FOS shall provide the capability to specify the type of screen snap to perform, which includes: a. snap to a printer		0

Test Case ID	Level 4	Status	Text	Clarification	NCR ID
			b. snap to a file		
	F-FUI-01605	passed	The FOS shall provide the capability to snap a window.		0
	F-FUI-01610	partially passed	The FOS shall provide the capability to specify the color intensities for the real-time windows.		08492
	F-FUI-01615	partially passed	The FOS shall provide the capability to specify the colors for non real-time windows.	The selection of colors will be from a predefined palette as defined in the ECS User Interface Style Guide.	08492
	F-FUI-01620	passed	The FOS shall provide the capability to select the font styles to be used from a predefined selection.		0